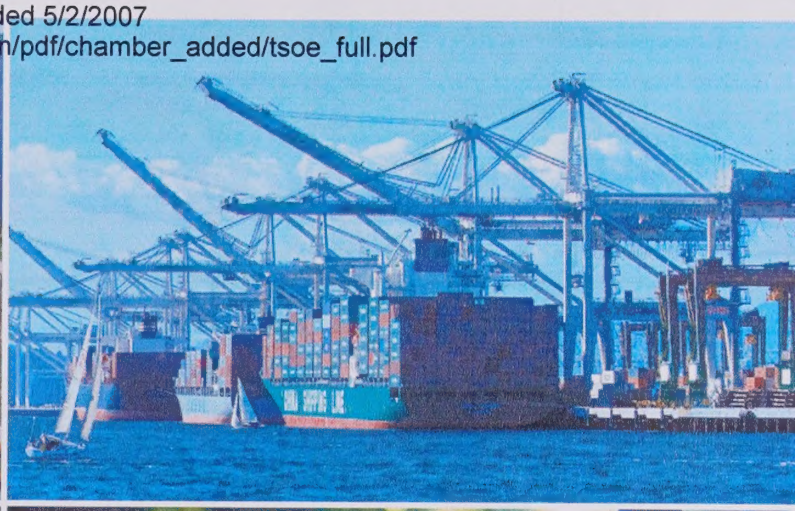

Taking Stock of Oakland's Economy

Oakland Metropolitan Chamber of Commerce

April 2007

OAKLAND
METROPOLITAN CHAMBER OF COMMERCE
Serving the Business Community Since 1905

CONTENTS

PREFACE

Oakland's history is a proud one, rich with significant characters and iconic events. From our welcome of San Francisco residents in the aftermath of the 1906 earthquake to our compassion and response to the victims of the firestorm of 1991; from the founding of the University of California to the founding of the Brotherhood of Sleeping Car Porters by our current Mayor's uncle, C. L. Dellums; from Henry Kaiser's shipbuilding empire to Kaiser Permanente's healthcare headquarters, the legacy is a proud city that is home to one of the most diverse populations in the US, a city that, in many ways, represents the future of our country.

Our economic history tracks the classic story of the rise and decline of many American cities. Boom times in the 1920s, World War II and post-war eras drew thousands of new residents to work in our new factories and shipyards. With the development of the highway system in the 1950s and 1960s, however, many residents and businesses took advantage of their new mobility and relocated to burgeoning suburbs. Economic recession in the 1960s and 1970s brought social unrest to most urban centers, Oakland among them.

Still, in the 1970s, Oakland was home to 27 companies earning in excess of $100 million in revenues per year. Today, of the 200 largest publicly traded companies in the Bay Area, Oakland is home to only 3, despite being the third largest city in the region. What might explain this? The reasons the City has struggled economically over the years are complicated indeed.

Not the classic story

After their decline in the 1960s and 1970s, many US cities realized they needed to remake themselves in order to survive. They created far-reaching plans for redevelopment and recognized that municipal government would need to attract private investment dollars to modernize physical space for people and companies in America's new high-tech and professional service industries. Cities such as Cleveland and Chicago formed strong public-private partnerships based on the belief that rebuilding their city was in the mutual interest of business, government, community, and labor leaders.

For a number of reasons, Oakland was unable to recruit business leaders and philanthropic dollars on sufficient scale to remake itself. While a few dedicated local developers focused their efforts on downtown and Jack London Square and the Port sought to secure investment in its operations, Oakland has not enjoyed the same influx of capital as other cities. In large part this was because Oakland lacked both a comprehensive economic vision and a sufficient critical mass of public-private partnerships, the critical mass required to make a convincing case to capital markets for implementing that vision.

Consequently, Oakland missed some key opportunities. The City has become the "hole in the donut" with respect to the Bay Area's burgeoning biotechnology and life sciences industries. Genentech, Novartis, and Bayer evolved on our doorstep. In the late 1990s the City lost the headquarters of BayBio, Northern California's bioscience association, to South San Francisco. When the industry matured and the need for biotechnology manufacturing facilities burgeoned, Chiron, Genentech, and other companies chose to build state-of-the-art facilities in Vacaville and employ more than 5,000 people there, not in Oakland.

Some Oakland public officials are skeptical that the City will ever again compete effectively for production jobs. In recent years, the pressure exerted by housing developers to convert under-utilized industrial land to housing has strengthened fears that the value of the City's land for productive uses has evaporated. Indeed, the City Council's willingness to allow some industrial parcels to convert to housing has confirmed some of these fears, for the conversion has fueled speculation in the real estate market that could increase the value of land withheld from productive uses.

Breaking the cycle

What can be done to break this cycle? And what can be done to increase trust among major stakeholders, bring about a shared vision, and invigorate our political will?

First, new information. New information must convince skeptics. What is the nature of demand for Oakland's productive land? What is the demand for our people, both skilled and unskilled, in a global economy where every job now competes with labor in China, India, and everywhere else?

The good news, which is detailed in this report, is this: demand is high and can be sustained, particularly in sectors where Oakland enjoys unique competitive advantages due to its historical and regional legacy – healthcare, international trade and logistics, and certain professional services. As well, Oakland is poised to take advantage of emerging opportunities in other sectors: environmental technology, alternative energy, arts, design, and digital media, and, yes, biotechnology.

Second, a collaborative vision. Oakland's multi-sector leadership will need to work together in ways they have never done before. Oakland can compete in today's global economy if it creates a solid plan for its future, a plan in which the roles and responsibilities for government, business, education, and labor are well defined as working in close collaboration with each other. For Oakland, the sea-change will mean moving from passive, reactive development – e.g., capturing companies pushed out of San Francisco by rising rental rates – and antagonism between investors and regulators, to a proactive strategy that attracts and shapes development consistent with the community's values and vision for itself.

Under former Mayor Jerry Brown's watch, the City took steps in these directions. In attracting new residents to downtown over the past 8 years, Mayor Brown realized he would need to tap investors from outside the City, if not outside the region. In fact, today's capital markets necessitate a partnership of understanding between any city's political leadership and its local investor community in order to make a strong case for risking dollars on urban revitalization schemes. This is why we are convinced that an economic vision comprehensive of all the City's stakeholders will be key to attracting the level of investment Oakland needs to truly remake itself and create economic opportunity for all of its residents.

Fortunately, Mayor Dellums is promoting just the kind of collaborative work that can create a comprehensive vision.

A way forward

Before entering office, Mayor-elect Ron Dellums convened a series of Task Forces to make recommendations for addressing the City's many challenges. Mayor Dellums is now considering these recommendations and prioritizing those that may be implemented in the short and medium term. Simultaneously last spring, the Oakland Metropolitan Chamber of Commerce (OMCC) commissioned this report to help provide new information regarding the nature of Oakland's

opportunities and challenges. The Chamber is grateful to McKinsey & Company for its support in this endeavor.

Based on the input of the Mayor's Task Forces and this report, the Mayor's office is engaging business leaders as well as leaders from UC Berkeley, Cal State East Bay, the Peralta Community College District, the Central Alameda Labor Council, and many other stakeholders in the region to form and implement a public-private partnership of the kind that has worked so effectively in other cities. The Oakland Partnership intends to work to: (1) attract new investment; (2) create new jobs; (3) strengthen the region's workforce development system in collaboration with industry to enhance the ability of all residents to participate in Oakland's economy; (4) improve the City's land use policy to reflect the demand for Oakland's productive real estate; (5) facilitate and support the emergence of new businesses, particularly small businesses in every sector by creating a dynamic business climate in which small companies are able to tap new markets, gain new expertise, and grow; and (6) address the City's persistent crime problem.

In the coming months, the Chamber will convene a series of action-oriented work groups for each of Oakland's key existing and emerging industries. We anticipate working closely with the Mayor's Task Forces focused on "enabling" issues of workforce development, land use, business climate, and promoting public safety. Through this coordinated planning process, we will create a shared vision for Oakland's future.

Thank you for your interest in joining this partnership.

Joseph J. Haraburda

President & Chief Executive Officer

Oakland Metropolitan Chamber of Commerce

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The McKinsey team included Lenny Mendonca, a director at McKinsey & Company and chairman of the McKinsey Global Institute; Gaston Bottazzini, a principal who oversaw the work; Junaid Mohiuddin and Serena Guarnaschelli (Ph.D.) who managed the engagement team: Ian Hill, Philippe Sion, and Sigal Lerner. Various McKinsey functional and industry experts from around the world also contributed their knowledge. Donna Gregory (Ph.D.) and Jerry Stauduhar, independent communication consultants, worked with the joint McKinsey and OMCC team in the writing and editing of the report, and Bill Carlson, Ellen Foreman, Marisa Carder, and Downey Noel provided production support.

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Finally, the OMCC would like to thank our new Mayor, Ron Dellums, for his vision and leadership. Together we can do great things; we thank the Mayor for his integrity and his belief in that approach. We also commend and thank the hundreds of community volunteers working on the Mayor's Task Forces to create a stronger Oakland.

About OMCC

The Oakland Metropolitan Chamber of Commerce is in its 102nd year of serving Oakland and the region. Its mission has been and continues to be to promote commerce and industry, advance economic growth, and enhance the quality of life in the City of Oakland.

About McKinsey & Company

McKinsey & Company is a management consulting firm that helps many of the world's leading corporations and organizations address their strategic challenges. With consultants deployed in more than 40 countries, McKinsey advises organizations on strategic, operational, organizational and technological issues.

INTRODUCTION

Last fall, the Oakland Metropolitan Chamber of Commerce set out to establish a clear picture of the current state of Oakland's economy, its relative competitiveness and attractiveness, and the issues hampering economic growth and continued improvement in the City's quality of life. To assist with this, McKinsey & Company agreed to conduct research, engage the business and civic leadership of the City, and ultimately, identify some tangible initiatives that could make a discernible impact on Oakland. The findings from that research and the resulting recommendations on initiatives that can propel the City's economic development going forward are the subject of this report. But first, some context.

THE RISE AND FALL OF OAKLAND'S ECONOMIC CORE: MANUFACTURING, TRANSPORTATION, AND HEALTHCARE

Historically, Oakland's economic foundation rested on strong manufacturing, transportation, and healthcare industries. During World War II, booming war-related industries in Oakland – notably ship building and food processing – drove Oakland's GDP past San Francisco's, and the City enjoyed general prosperity as workers from across the US settled here. The war years left a legacy of high employment and strong industry sectors, which formed the core of a healthy economy. Permanente Health Plan had more than 300,000 Californians enrolled by the mid-1950's.

As in many cities across the US, the 1950s and 1960s saw many residents and businesses relocate outside the City. Later, recession in the 1970s and higher incidence of crime resulted in additional business flight. The 1980s and 1990s gave rise to global trade, which brought the FedEx hub and the Airport's expansion and grew Oakland's maritime port. Spillover from the dot-com boom provided more economic stimulation and lowered office vacancy rates. But these new inputs were not enough to counter losses in Oakland's core sectors, and the City's economic health further declined. [Exhibit 1]

Over the past 6 years, Oakland grew jobs in the aggregate more quickly than both the US as a whole and the Bay Area. From 2001-2006, Oakland's employment grew at an annual rate of close to 1 percent (compound annual growth rate [CAGR])[1]; by contrast, employment across the US during the same period grew at about 0.6 percent annually, and the Bay Area lost jobs at an annual rate of 1.4 percent.

However, despite Oakland's recent employment growth, the erosion of its traditional sectors since the 1950's is undeniable. Once a manufacturing powerhouse, the City's employment concentration in manufacturing now is lower than the nation and the rest of the Bay Area (6 percent vs. 11 percent for the US as a whole and 10 percent for the Bay Area). Oakland's transportation sector, despite growth in some areas, shows an overall decline at a rate of 2 percent as major companies like Crowley Maritime shift their employment elsewhere and capacity at the Maritime Port suffers constraints. Finally, healthcare, an industry that is on the rise nationally as Baby Boomers age and new technologies spawn new treatments, and an industry that historically was core to Oakland's economy, is not keeping pace, with growth nearly flat (0.1 percent) compared with the US growth rate of 2.5 percent.[2]

1. All growth rates herein will be compound annual rates (CAGRs) and will cover the period 2001-2006 unless otherwise stated.
2. Oakland and Bay Area figures from California Employment Development Division; US figures from US Bureau of Labor Statistics. Chapter 1 looks in detail at sector concentrations and growth rates.

Exhibit 1
ECONOMIC HISTORY OF OAKLAND
World War II to the present

World War II	Post-War-1950s	1960-70s	1980-90s	2000-present
• Oakland GDP exceeds San Francisco • War-related industries boom – Ship building – Food processing • General prosperity as laborers from across the U.S. settle in Oakland	• 1945 Permanente Health Plan opens; 1955 has 300,000 members due to union support • War-related jobs disappear • "Urban flight" hits hard as affluent residents move to newly developed suburbs	• Poverty, segregation, and racial tensions increase • Civil rights/anti-Vietnam War protests at UC Berkeley • Rising crime rate downtown • Public leaders take passive role in City's economic growth • Taxes increase	• Rise of global trade brings FedEx hub, airport expansion, and growth of maritime port • Loma Prieta and fire net multibillion dollar losses • Dot-com spillover lowers office vacancy • Economic base shrinks due to – Failure to nourish core sectors – Insufficient public investment – Lack of vision	• Downtown population booms with new condos, low interest rates, healthy regional housing demand • Small-to-medium businesses thrive in local clusters but grow slowly • Tracts of usable industrial land sit idle • Investment from other parts of Bay Area expands east but skips Oakland for Contra Costa

The decline of Oakland's traditional core industries and the inability to nurture new ones has led to some unfavorable dynamics among the sectors that make up Oakland's economy today (examined in detail in Chapter 1). A disproportionately large percentage of Oakland's employment is tied up in government (federal and state agencies as well as municipal government), a sector that does not directly contribute productivity gains to a city's economy. To make the point simply: one-fifth of Oakland's employees work for government entities, which do not pay taxes to the City. If this large share in a non-tax-generating sector were balanced by a few more sectors whose shares were significantly greater than the US averages, the City's economy would be more competitive with its peers and better able to sustain growth.

OAKLAND'S UNIQUE STRENGTHS, OPPORTUNITIES, AND CHALLENGES TODAY

The good news is that Oakland enjoys a number of emerging opportunities due to its cultural and regional strengths. Tapping these largely involves addressing some fundamental economic enablers.

Cultural and regional strengths

Oakland's many strengths include its creative and entrepreneurial culture, its position as a transportation hub, and resources needed by the region, such as its talented labor pool and its real estate.

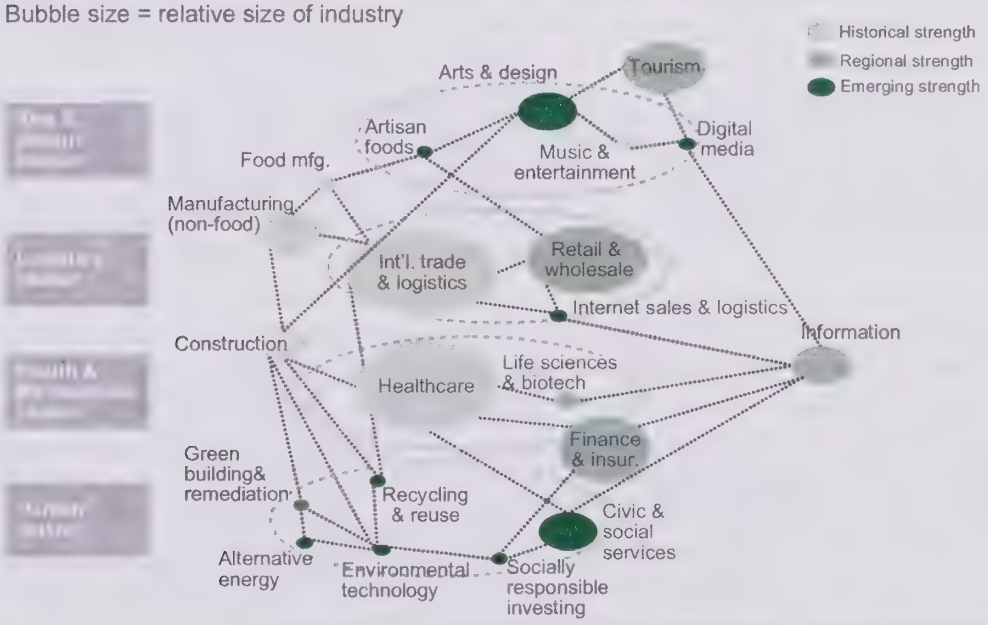
A creative and entrepreneurial local culture. Always a magnet for environmentalists, scientists, artists, and civic-minded people, Oakland and the East Bay, including the University of California at

Berkeley, are productive incubators for many of the industries in ascendancy today. New industries and occupations are emerging in a variety of sectors, including environmental technology and biotechnology. Pioneers of socially responsible investing, such as Progressive Asset Management, started in Oakland. Long a leader in the green building movement, Oakland is ranked one of the Top 10 Greenest Cities in the US by The Green Guide, and Oakland's proliferation of green- and health-focused companies reflects these values. Its historic strength in food processing has evolved from war-time canneries to freshness foods; organic, artisan, and ethnic foods has tripled the City's specialty food manufacturing in the past 3 years. Finally, Oakland today is home to over a hundred enterprises in the arts and digital media. Indeed, across sectors exciting new possibilities for growth are emerging as historical and regional strengths morph into new economic engines. [Exhibit 2]

Exhibit 2

CONCEPTUAL FRAMEWORK: INDUSTRIES EMERGING AND CLUSTERING IN OAKLAND FROM HISTORICAL/REGIONAL SECTOR STRENGTHS

Bubble size = relative size of industry



Transportation hub. Oakland's historic position as a transportation hub offers a tremendous opportunity for the East Bay to capture some of the global growth in the logistics industry. More than half of the businesses surveyed for this study indicate that Oakland's airport is very important to their business operations. Home to major hubs for UPS and FedEx, the Port of Oakland, and Oakland International Airport, Oakland could leverage its infrastructure and connectivity to capture more activities involved in synchronizing the movement of goods in today's global economy.

Partner in the Bay Area region. Oakland enjoys significant opportunities due to the vibrancy and global competitiveness of the Bay Area region. The Bay Area leads the nation in information technology, biotechnology, venture capital, and many other sectors, and is the benchmark against

which most regions compare themselves. Oakland, with its talented labor pool, available real estate, and central location, stands to attract much of this business. And in the near future with the right set of economic fundamentals in place, it could apply this advantage to attract new business and promote expansion of existing companies.

Enabling action, addressing the fundamentals

To capitalize on the City's strengths and realize the full potential of the opportunities described above, stakeholders in Oakland will need to address three key issues that could hamper success: inaccurate perceptions of the City, barriers to development, and a need for collaboration.

Perceptions. To date, Oakland has not fully capitalized on these emerging strengths. One reason for this may be that they are not well known outside of Oakland. Oakland's location in the shadow, as it were, of San Francisco and Silicon Valley reduces its visibility. Just as New York and Los Angeles capture the world's attention but Newark and Long Beach do not, a smaller city near a more renowned metropolis tends to be obscured. As it is, Oakland's image has been shaped selectively over past decades; urban violence and high-profile elections regularly make the national news, while the City's burgeoning arts and music culture does not. With little new information to challenge old perceptions, there is a tendency to see Oakland through distorted lenses.

Barriers. While perceptions about the City stand in the way of major new business development, there are several homegrown barriers as well. Businesses often report that the City's bureaucratic processes are cumbersome and inhibit growth and initiative. Further, the City receives a relatively low level of tax receipts with which it could otherwise make fundamental upgrades. In fact, both the decline in once-strong sectors and the inability to attract new investment are largely due to a lack of attention to fundamentals: a well-defined land use policy; strategic investments in infrastructure; better functioning, accessible public education and workforce training; public safety; and a solid economic strategy and public policies consistent with that strategy. Oakland could increase its share in the Bay Area economy by deliberately addressing these fundamentals. As an example, a failing public school system perpetuates a vicious cycle: neither inadequately prepared high school graduates nor high school dropouts have an easy time meeting entry-level job requirements, and poorly prepared community college students must take more remedial courses rather than college transfer courses or job preparation programs. At the same time, workforce development programs lack the coordination among themselves that would otherwise match qualified workers to suitable jobs. This is just one example; many more follow later in this report.

Need for collaboration. Many potential investors interviewed for this report indicated that concerted political will and healthy working relationships between government, business, education, and labor can make the difference in Oakland. By working together, these stakeholders can attend to the fundamentals, grow the economy, engage more people in it, provide more of the badly needed public resources to deliver basic and essential services and safety to the City's residents, and ultimately, can bring about a vibrant new Oakland.

PREVIEW OF RECOMMENDATIONS AND REPORT CHAPTERS

Oakland's historical strengths, current economic profile, potential untapped opportunities, and the fundamentals underpinning its economic health were all examined and considered in the development of this report. In the final analysis, four overarching recommendations for the City emerged.

1. **Build strategically** on Oakland's historic, regional, and emerging strengths:
   - Strengthen existing industries such as healthcare, trade and logistics, and retail.
   - Leverage the assets of the Bay Area and UC Berkeley to develop Oakland's role in the region's biotechnology industry.
   - Leverage the City's central location, talented workforce, cultural values, and proximity to UC Berkeley and other schools to grow new economic activities in green industry; arts, design, and digital media; and specialty food manufacturing.
2. **Improve the balance of key sectors** in the economy, placing priority on high-growth, high wage industries such as biotechnology, healthcare, logistics, and others.
3. **Address the City's economic fundamentals** that enable the rest of the economy to flourish:
   - Public safety
   - Education and workforce training
   - Business climate
   - Clear, consistent land use policy.
4. Understand the economic opportunities and constraints the City faces and **work collaboratively** to seize those opportunities and address the constraints. Strong leadership with a focus on priorities is important, but little progress can be made unless government, business, education, and labor leaders work together to achieve shared goals and objectives.

The remainder of this report details our findings and provides the rationale for these recommendations.

- Chapter 1 explains the research and analysis methodology used. It also contains an overview of the key sectors that make up Oakland's economy, their relative sizes and growth rates, and how they compare against US and Bay Area figures.
- Chapters 2 through 5 outline the sectors projected to offer Oakland the most economic returns going forward – biotechnology, healthcare, trade and logistics, and retail. These sector chapters each conclude with a set of sector-specific recommendations for actions Oakland should take in the short, medium, and long term.
- Chapter 6 uncovers a number of emerging sectors in Oakland, including green industry; arts, design, and digital media; and specialty food manufacturing, which offer Oakland the chance to differentiate itself from the Bay Area.
- Chapter 7 focuses on underlying economic fundamentals in Oakland such as public safety, business climate, and education, and suggests a set of recommendations for improving them that cut across all sectors.

The truly good news is that Oakland's challenges need only committed leadership grounded in collaborative efforts. Oakland is fortunate to have highly talented leaders in both the public and private sectors. This report describes what their engaged collaboration might look like. At the same time, it offers a new picture of Oakland, aiming to bring perceptions into line with both Oakland's realities and its potential.

CHAPTER ONE
STUDY METHODS AND SECTOR DYNAMICS

This study is designed to be a quantitative and qualitative assessment of Oakland's economy with three objectives: (1) to analyze its evolution over time with a focus on employment; (2) to benchmark Oakland's economy today against the Bay Area and the US; and ultimately (3) to evaluate economic opportunities and constraints to enable higher productivity growth in various sectors leading to high-quality job creation. The overarching objective is to make Oakland more competitive and attractive to both businesses and job seekers, with the ultimate aim of improving quality of life.

It is important to acknowledge the limitations of this report. The analysis contained herein does not attempt to answer every question about the Oakland economy, and the team did not analyze data related to many important economic measures, such as housing trends, capital improvements, or fiscal policy. Nor is this study intended to be a comprehensive economic development strategy. It defines a number of strategic actions stakeholders in Oakland could take in an effort to seize what, as determined by this report, would be significant opportunities for Oakland. While this report puts some of these actions in sequence, a prioritization of such actions remains to be done.

This chapter briefly discusses the research methodology used in the preparation of this report – which sources of information were used, how the set of potential sector opportunities was determined, how sectors were finally selected as best serving the study's overall strategic objectives – and it concludes with preliminary assessments of many of Oakland's industry sectors. Subsequent chapters focus on select sectors.

INFORMATION SOURCES

The study team leveraged four information sources: (1) personal interviews with nearly 40 civic leaders, policy shapers, business executives, media leaders, and academics; (2) an advisory group comprised of various community stakeholders including representatives of Oakland's ethnic Chambers of Commerce, City of Oakland staff, the Maritime Port of Oakland, the Peralta Community College District, the University of California at Berkeley, the Oakland Workforce Investment Board, regional economic agencies, and nonprofits; (3) a survey of Oakland businesses to gauge perceptions about important dimensions of doing business in Oakland such as its business climate, infrastructure, quality of education and workforce training system, crime and public safety, and environmental values; and (4) data from various public and private sources. Public sources include, but are not limited to, the California Employment Development Department (EDD), the US Census, the US Bureau of Economic Analysis (BEA), Securities and Exchange Commission (SEC) filings, the US Bureau of Transport Statistics (BTS), and the US Bureau of Labor Statistics (BLS), which provided basic economic and demographic figures for Oakland, the Bay Area, the US, and cities selected for benchmarking. Private sources of data include, but are not limited to, Moody's Economy.com, Hoover's, VentureXpert, Salary.com, and BayBio.

Employment figures (primarily from EDD) were used to quantify the magnitude of each industry's contribution to the Oakland economy. (Employment is a common indicator used when the aim

is to compare relative industry strength across regions.) US figures came from the US Bureau of Labor Statistics.

DETERMINING HIGH OPPORTUNITY SECTORS

To identify opportunities with the greatest promise of strengthening Oakland's economy and sustaining its cultural values, industry sectors were prioritized along three dimensions: employment concentration and growth (to identify drivers of the economy); attractiveness to potential new companies and employees (a series of qualitative measures), and productivity.

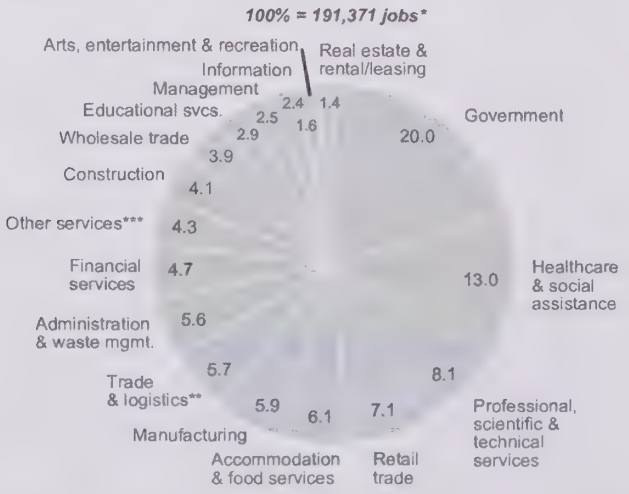
Employment

Employment in each of Oakland's sectors was analyzed in three ways: by size (also referred to as share and as concentration), by size relative to the US and the Bay Area, and by rates of change. Results are summarized below in that sequence. The base period used, 2001 to 2006, reflects the impact of both the dot-com bust and the subsequent real estate expansion.

First, Oakland's industry concentrations were calculated [Exhibit 3]. As of 2006, Oakland's largest employment sectors were **government**, with a 20 percent share of total employment, **healthcare and social assistance,** with 13 percent, and **professional, scientific, and technical services,** with about 8 percent.

Second, employment concentration ratios (ECR) were calculated, comparing Oakland's concentration in each sector to the US and to the Bay Area. [Exhibit 4]. A ratio of 1.0 indicates that an Oakland industry sector is equally concentrated relative to a typical US region. A ratio of 2.0 reveals twice

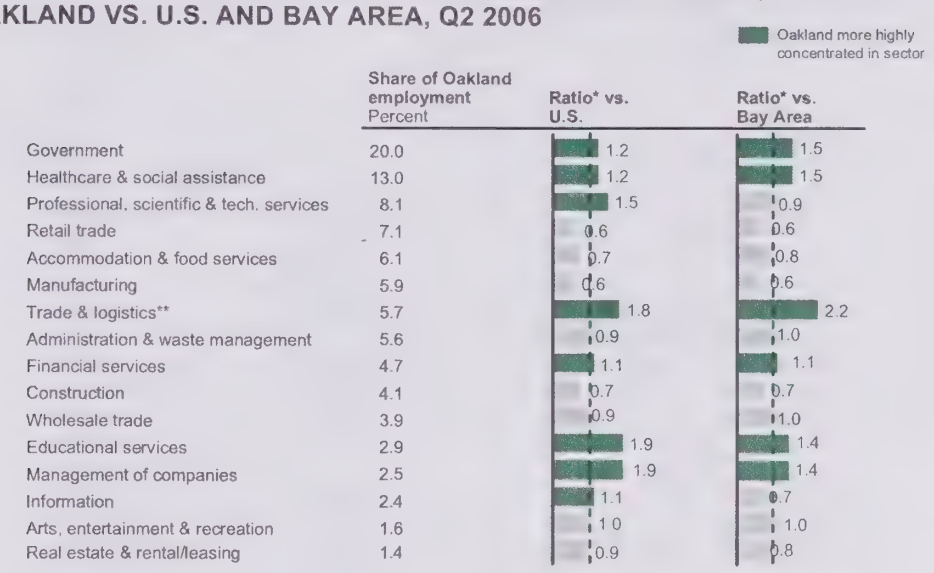
Exhibit 3
DISTRIBUTION OF EMPLOYMENT IN OAKLAND BY SECTOR, Q2 2006
Percent of total employment



* Figure excludes employment in mining, utilities, agriculture, forestry, fishing and hunting, and nonclassifiable establishments, all of which have nominal employment in Oakland
** "Transportation and warehousing" in 2-digit NAICS
*** Includes repair, maintenance, personal services and religious, grant-making, civic organizations
Source: California Employment Development Department

Exhibit 4

COMPARISON OF EMPLOYMENT SECTOR CONCENTRATION, OAKLAND VS. U.S. AND BAY AREA, Q2 2006



* As employment concentration ratio, in which a value of 1 indicates equal concentrations, values >1 indicate higher concentration in Oakland vs. other geography, and values <1 indicate lower concentration in Oakland vs. other geography

** "Transportation and warehousing" in 2-digit NAICS

Source: California Employment Development Department; Bureau of Labor Statistics

the concentration in Oakland as in the US, which in turn, signals a degree of specialization that may mean the sector is driving the regional economy and bringing net new wealth into the region.

Exhibit 4 shows the concentration of Oakland's sectors relative to the US and Bay Area. What stand out are Oakland's concentrations relative to the US in eight sectors. Oakland's three largest sectors, government, healthcare, and professional, scientific, and technical services, are more concentrated than the US average. Five other sectors are also more concentrated than the US: trade and logistics, financial services, educational services, management of companies (the headquarters or administrative function of companies), and information. Employment in most of these sectors is also highly concentrated in Oakland relative to the Bay Area.

Third, growth in employment over time reveals which sectors were adding or shedding jobs in the 5-year period of 2001 to 2006. [Exhibit 5] Oakland's fastest growing sectors over the period were **financial services; educational services; government; professional, scientific, and technical services; and arts, entertainment, and recreation.** Comparisons with US and Bay Area growth rates are discussed in the final section of this chapter.

Finally, Exhibit 6 brings together all three sets of employment data. It maps employment concentration against employment growth in an effort to see which sectors in Oakland may offer strategic advantage going forward. The overall size of each sector in terms of employment is represented by the size of the bubbles.[3]

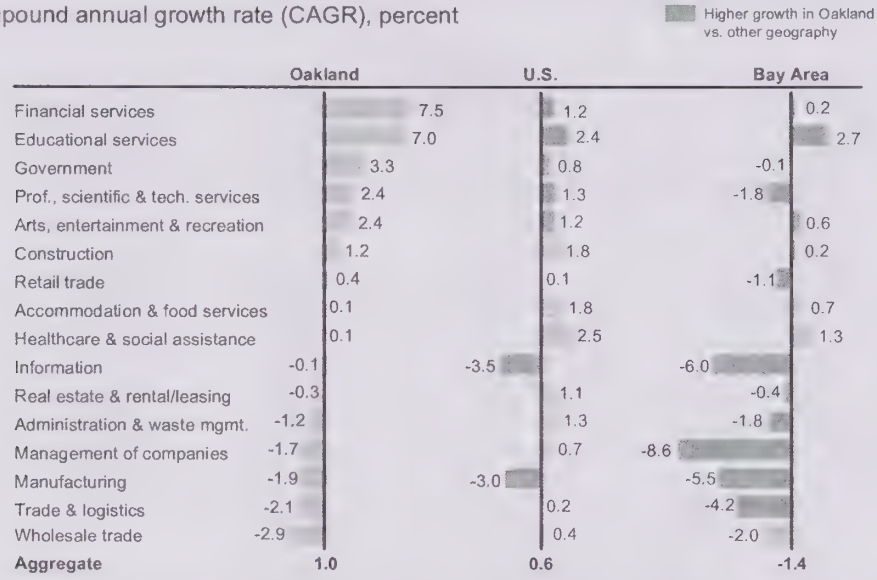
Industries near the center axes of the chart have demonstrated little employment growth and show only typical concentration. It is notable that most of Oakland's sectors cluster there. Ideally, more sectors would appear in the upper right hand corner where, in most cases, would be

3. Government was omitted because, while the government sector is an important element of Oakland's economy, its status as a non tax-paying entity disqualified it from being considered a high-opportunity target. If it were on the exhibit, it would be located to the right of the cluster (at 3.3 percent), at the same height as healthcare, and its 20 percent concentration would dwarf healthcare's 13 percent.

Exhibit 5

GROWTH OF EMPLOYMENT SECTORS, OAKLAND VS. U.S. AND BAY AREA, 2001-06

Compound annual growth rate (CAGR), percent



Source: California Employment Development Department; Bureau of Labor Statistics

found the best bets in terms of strategic growth opportunities. Biotechnology, while small, is worth consideration. Educational services is a strong sector for Oakland, but it was not selected as a key target in this report in part because of the third selection criterion (to follow), its low productivity.

Sectors in the lower left are relatively poor performers, although in the case of manufacturing, its high productivity in Alameda County reveals that while it is shedding jobs, the remaining jobs may be of higher value.

Those sectors highlighted in Exhibit 6 are explored in greater detail in this report, for the reasons discussed below. Those not highlighted were not examined and may merit further attention (as also discussed below).

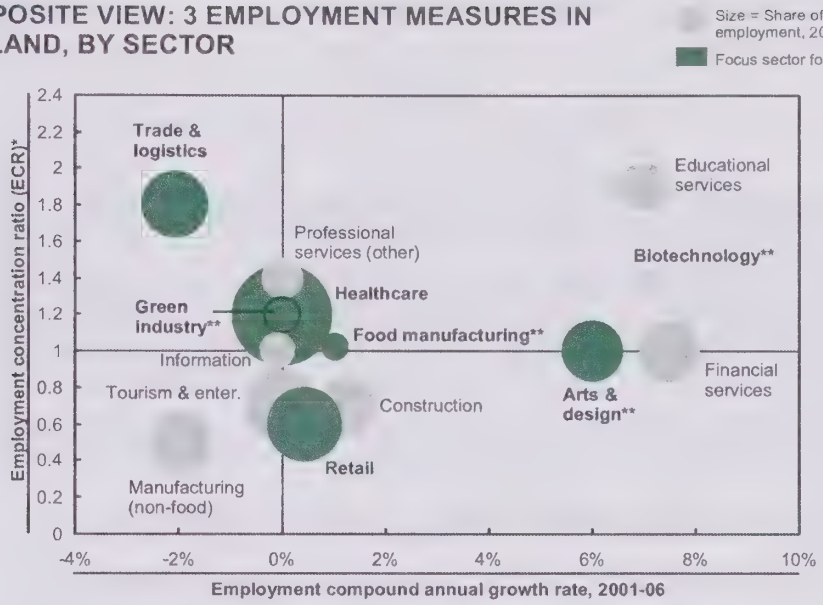
Attractiveness

This report also evaluated each of Oakland's sectors on the basis of a number of qualitative measures that can help determine their attractiveness to potential new entrants (companies or job seekers). Such attractiveness was evaluated on the basis of four dimensions:

- **Competitive advantage.** Sectors that could leverage Oakland's more unique factors for competitive advantage, such as the City's Maritime Port and International Airport, its waterfront, its central Bay Area location, and its history as a home to key competitors in certain industries.
- **Spillover effects.** Companies in these sectors would positively impact Oakland beyond their own activities and would create longer-term benefits for these constituents: (1) the local workforce (increased employment rates, improved job quality and wages, a range of

Exhibit 6

COMPOSITE VIEW: 3 EMPLOYMENT MEASURES IN OAKLAND, BY SECTOR



* For Q2 2006; value of 1 indicates equal concentrations, values >1 indicate higher concentration in Oakland vs the U.S., and values <1 indicate lower concentration in Oakland vs. the U.S.

** Sector defined at the 4-digit NAICS level; employment growth rate calculated for 2001-04 only (vs. 2001-06 for other sectors)

Source: California Employment Development Department; Bureau of Labor Statistics; team analysis

occupations and potential for career development, and enhanced training partnerships); (2) public finances (tax receipts); or (3) the community at large (enhanced public safety, less commuting time, or likely contributions to philanthropic institutions).

- **Regional strengths.** Companies that can leverage Bay Area strengths in technology, finance, healthcare, or Oakland's proximity to the University of California at Berkeley.
- **Cultural or value-based strengths.** Sectors that may be attracted to Oakland because of its culture and values (e.g., environmentalism/green, arts, multiculturalism, civic mindedness).

Productivity

Finally, each sector was also assessed with reference to its current productivity, based on output per worker using 2005 Alameda County output and employment data.[4] Given the community's goal of generating high quality jobs that can pay a living wage, evaluating industries on the basis of their productivity (output per worker) is advisable, as productive industries are better able to generate and thereby distribute higher returns per worker.

SELECTING HIGH-OPPORTUNITY SECTORS

To select the sectors offering the most opportunity for meeting Oakland's development goals, each sector received a point if it ranked high in the category of employment growth, employment concentration, qualitative attractiveness, or productivity. The results are displayed on Exhibit 7.

4. GDP per sector data does not exist at the city level. This data was obtained from Moody's Economy.com.

Exhibit 7
EMPLOYMENT SECTOR PRIORITIZATION GRID

Discussed in Chapter 1

	Positive employment growth	Driver of the economy (high employment concentration)	Qualitative attractive-ness	Higher than average productivity	Total score
Arts & design*	●		●	●	3
Biotechnology*	●	●	●	●	4
Construction	●				1
Educational services	●	●			2
Financial services	●			●	2
Food manufacturing*	●	●	●		3
Green industry*		●	●		2
Healthcare		●	●		2
Information				●	1
Manufacturing (other than food)			●	●	2
Other professional services		●			1
Retail	●		●		2
Tourism & entertainment					0
Trade & logistics		●	●		2

* Sector defined at the 4-digit NAICS level; employment growth rate calculated for 2001-04 only (vs. 2001-06 for other sectors)
Source: California Employment Development Department; Bureau of Labor Statistics;Moody's; Economy.com; team analysis

Sectors with scores of 2 or above were analyzed further for their potential for growing Oakland's economy and leading to high-quality job creation; some of the considerations are summarized in the Sector Dynamics section below. A high score (3 or 4) means the sector should receive serious consideration.

OAKLAND'S SECTOR DYNAMICS

Those industries selected for further analysis include biotechnology, healthcare, international trade and logistics, and retail. In addition, this report highlights the importance of three emerging sectors: green industry, which includes the green building industry, clean technology (alternative energy), socially responsible investing, and other aspects of Oakland's nonprofit culture; arts, design, and digital media; and specialty food manufacturing.

The subsections below offer some observations, first, about the sectors this report discusses in more depth, and second, about remaining sectors.

Sectors selected for further analysis

Oakland's **arts, design, and digital media cluster** of industries includes a number of different activities that share human creativity and artistic methods as common roots of their success: the fine arts, architecture, specialized design, animation, motion picture and video production, music production and publishing, and recording studios. At 8 percent compounded annual growth (CAGR)[5], it showed the highest employment growth rate of any industry. While Oakland is not relatively concentrated in this activity, there is anecdotal evidence that Oakland is home to a high

5. All growth rates in this report are compound annual growth (CAGR), unless otherwise noted. Sector growth rates and sizes are based on the period 2001 to 2006 unless stated otherwise. Typically, subsector analysis drew from alternative data and time periods.

number of artists per capita and that its community places a high value on the arts and creative endeavors generally.

Biotechnology is defined primarily as scientific research and development related to life sciences. With a 7 percent growth rate in Oakland from 2001 to 2004,[6] this sector also reveals great potential. Already a regional strength, it offers Oakland great advantages in terms of employment and productivity gains.

Oakland history as a center for **food manufacturing** has been transitioning into new segments focused on freshness and gourmet foods that can afford to operate in the expensive Bay Area real estate market. This subsector of the manufacturing industry grew at 1 percent annually from 2001 to 2004, showing a moderate concentration vis-à-vis other regions. While a very small contributor to Oakland's economic landscape, this sector could grow well given the nature of regional demand for gourmet and specialty foods and the existing strength in the City's infrastructure for this industry.

Activities related to **green industry** are defined in this report to include activities related to clean energy (research and development and production); green building, waste management and environmental assessments and remediation as well as certain nonprofit activities related to socially responsible investing and service and product delivery.

Most of these activities still defy the traditional industry classification system and so it is difficult to measure their growth using conventionally collected data. In Oakland, many can be classified as professional services firms, a category that includes companies that provide environmental consulting, geotechnical services, energy conservation and management, engineering, and other services; the category has enjoyed a moderate growth rate from 2001 to 2004. Employment in management, scientific, and technical consulting in Oakland grew at a rate of 8.4 percent from 2001 to 2005; employment in scientific, research, and development services grew by 7.7 percent over the same period. These firms, together with those in engineering and architecture, comprise more than half of all employment in Oakland's professional services sector.

Oakland's **healthcare and social assistance** sector is the City's second largest employer, contributing 13 percent of Oakland's jobs. This high employment concentration is primarily due to Oakland's being home to four major hospitals (Kaiser, Alta Bates Summit, Children's Hospital, and Highland Medical Center). The sector includes providers of medical services (not manufacturers or medical research): individual doctors, dentists, chiropractors, psychologists, and their staffs; medical clinics, outpatient care centers, medical labs, home healthcare services; hospitals general, psychiatric, and specialized; nursing care facilities, mental health and substance abuse facilities, facilities to care for the elderly; health services for individuals and families, community food and housing services, emergency and other relief services, vocational rehabilitation services, and child day care services.

With the robust growth projected for this sector in the U.S. economy and given Oakland's existing concentration (1.2), this sector seems like a natural one for the City to nurture and grow. It is discussed in greater detail in Chapter 3.

Trade and logistics includes airlines, shipping lines, trucking, urban transit, taxi and limo services, rail, post, couriers, warehousing and storage. This industry sector is highly concentrated in Oakland (1.8) given the presence of the Maritime Port of Oakland and Oakland International Airport. Its loss of market share (and employment) over the last 5 years could be an indication of the significant need

6. Data from EDD, Alameda County, 4-digit NAICS.

for infrastructure improvements to allow the Port to operate at capacity. For this reason and others, this report considers this industry in detail in Chapter 4.

The **retail** industry has long been a sector of interest for Oakland, as the City has seen billions of dollars of disposable income seep out to neighboring cities – cities that capture the sales tax benefits from Oakland residents forced to shop outside of Oakland due to its dearth of shopping opportunities. This is a controversial "target" for the City's leadership to consider given its low productivity and low employment growth rates. However, this report found that the tax benefits and quality of life improvements of developing this industry easily justify a major strategic push on behalf of the City's leadership. The nature of this challenge is explored in Chapter 5.

Other sectors

Oakland's share of employment in the **educational services** sector (postsecondary) grew at the steep rate of 7 percent. By contrast, educational services (postsecondary) in the US expanded at a 2 percent rate, and in the Bay Area, about 3 percent. As home to at least seven colleges and universities including Mills College, Holy Names University, Patten College, Samuel Merritt College, the California College of Arts and Crafts, as well as Laney College and Merritt College (members of the Peralta Community College District), Oakland is a tremendous resource within the Bay Area for this sector. Increasing demand for higher education opportunities and the success of the City's colleges and other training organizations in adapting to the market are evidenced in the dynamism of this sector. This report did not consider this sector in part because of its low productivity. However, it merits further consideration as a strategic sector for Oakland.

Oakland's **financial services** sector has grown at 7.5 percent. By contrast, the US sector grew at only a 1.0 percent rate compounded over the period, and the Bay Area stayed flat. Oakland's dramatic growth rate may in part reflect Oakland's favorable real estate market, particularly relative to the Bay Area's. It may also reflect a strengthening of Oakland's role in the broader, regional financial services industry centered in San Francisco. This report did not explore this sector in detail in part due to its moderate concentration in Oakland. With an ECR of 1, this sector is likely one serving the region and not yet one of Oakland's important drivers, although it could be in the future.

Government employment in Oakland grew at 3.3 percent annually over the period, while the US rate was less than 1.0 percent. Given that Oakland's share of employment in government agencies is already high (20.0 percent) – and higher than the US, which includes the massive Federal Government subsector – this growth rate should be viewed cautiously. Government is a non-tax-paying sector and is not a wealth-generating enterprise. An over-reliance on this sector with few other, more productive sectors to balance out its effects can be a danger sign.

A note on the **information** sector: The sector (which includes not only information technology but all communication and publication industries), while showing a small loss, did much better than the US, which lost at the rate of –3.5 percent over the period, and the Bay Area, which lost at a very significant -6.0 percent rate. In large part because the concentration of this sector in Oakland is typical of that of the US, this report does not examine it in great detail. Rather, as a strong, supporting element of the infrastructure for Oakland's other driving sectors, it should continue to play a vital, if not driving role in the economy.

Oakland's loss in **manufacturing** is well known, and today the City has a significantly lower share of its employment in manufacturing than the rest of the Bay Area and the nation (6 percent vs. 11 percent for the U.S. as a whole and 10 percent for the Bay Area[7]). With a 2 percent decline in employment from 2001 to 2006, this sector appears to be contracting, although it should be noted it has made significant productivity gains. It ranks fifth in overall productivity (after information, financial services, biotechnology, and arts and design). While this report does not explore this industry in detail, it merits further consideration as it transitions to higher value-added, more productive activities. The sector still employs more than 11,000 people in Oakland and given the opportunity to evolve into higher-end production and to develop and lease more modern facilities, it should continue to provide excellent job opportunities for Oakland residents.

The main components of the **professional services** sector are legal, accounting, computer systems design, management consulting, scientific research, and advertising. The sector appears small on the exhibits above because some of its largest components have moved to other clusters: environmental engineering (in green), architectural and engineering and specialized design services (in green and in arts, design and digital media); scientific research and development (in biotechnology); advertising (in the arts and design cluster), etc. However, this distribution applies only to the county data displayed here, and City-specific data fully captures this sector.

Tourism and entertainment includes **accommodations and food services** (which holds a 6 percent share of overall employment in Oakland) and consists of hotels, motels, rooming houses, restaurants, cafes, snack bars (doughnut shops and quickie marts), and bars. With an ECR of 0.7, this sector is relatively under-concentrated in Oakland. Given that it is a regional strength, however, Oakland could do much more to develop this industry. Low productivity and a zero growth rate resulted in its exclusion from this report.

7. Oakland and Bay Area figures from California Employment Development Division; US figures from US Bureau of Labor Statistics.

CHAPTER TWO
BIOTECHNOLOGY SECTOR STRATEGY

Oakland's strengths make it well positioned to attract companies from two of the Bay Area's strongest sectors, biotechnology and healthcare. Both industries offer significant primary benefits in the form of financial upside and jobs, and they confer secondary advantages as well in the form of substantial economic spillover, stimulus to education, and minimal environmental impact.

Biotechnology companies belong to the growing sector of professional, scientific, and technical services, contributing 8 percent of Oakland's employment and growing at a compounded rate of 2.4 percent per year.[8] Biotechnology comprises various sub-sectors including, but not limited to, human therapeutics, biodevices, pharmaceuticals, agricultural biology, and marine biology.

In the near term, Oakland could attract biotechnology and grow healthcare while replacing healthcare jobs lost over the past decade, and in the medium term, it could grow both industries. In the longer term, there is an exciting opportunity for Oakland to create a life sciences cluster.

This chapter aims to provide a sense of the market opportunity, key drivers, Oakland's positioning, and steps the City's leadership can take to capture the opportunity.

THE REGION'S BIOTECHNOLOGY CLUSTER OFFERS A GREAT OPPORTUNITY

It hardly needs to be said that biotechnology is a large and fast-growing industry dominated by California and the Bay Area in particular. Indeed, California is home to more biotechnology companies by far than any other state. [Exhibit 8]

Since biotechnology's origins in the Bay Area in the 1970s, the region has captured a significant and growing share of California's biotechnology firms. One reason for this is the number of firms founded by University of California scientists: more than 140 since the 1980s.[9] Another reason is that companies in this sector characteristically act as magnets for others of their kind, having a well-known need to work within a community energized by bio research know-how.

But in the 1990s while other Bay Area cities, including Oakland's near neighbors, were welcoming biotechnology, Oakland did not capture any of this burgeoning investment. In short, the City lacked the disciplined approach and leadership to persuasively engage with key firms and developers in the industry to make the case for Oakland. [Exhibit 9]

Biotechnology offers Oakland much upside potential. Companies in this sector earn large revenues and enjoy high growth. [Exhibit 10] Biotechnology companies create jobs, and they create them for every educational level and in a variety of specialties across the life sciences. Genentech in 2005 employed about 3,100 people in South San Francisco. Chiron in Emeryville, recently acquired by Novartis, employs about 2,500, and Bayer in Berkeley, 1,500. People with degrees ranging from Ph.D. to terminal high school degrees are needed in biotechnology. Exhibit 11 displays several well-paying biotech-related jobs that only require a high-school degree.

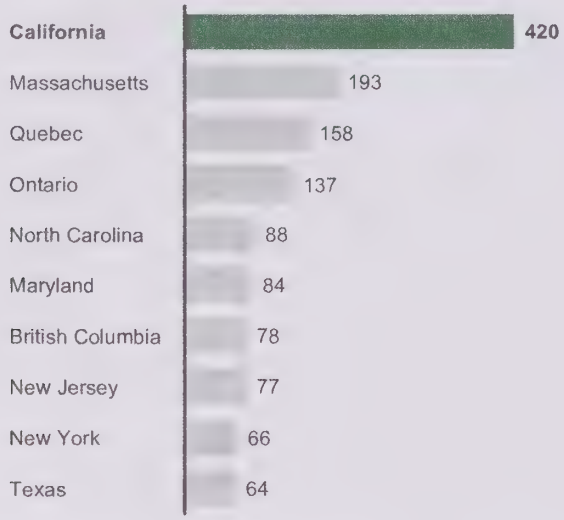
8. The sector includes lawyers (~30 percent), engineers (~11 percent), computer systems programmers (~9 percent), architects (~5 percent), CPAs (~4 percent), and environmental consulting services (1 percent). Other businesses included in this category are scientific research and development, consultants of various kinds (management, scientific, technical), employment agencies, and security services.

9. University of California Technology Transfer Office, "Assessing the Role of the University of California in the State's Biotechnology Economy" (March 24, 2003).

Exhibit 8

TOP 10 NORTH AMERICAN STATES/PROVINCES FOR BIOTECHNOLOGY COMPANIES, 2004

Number of companies



Source: Ernst & Young LLP, *Americas Biotechnology Report: Resurgence*, 2004

Exhibit 9

TOP BIOTECH CITIES IN CALIFORNIA

Italic = East Bay city

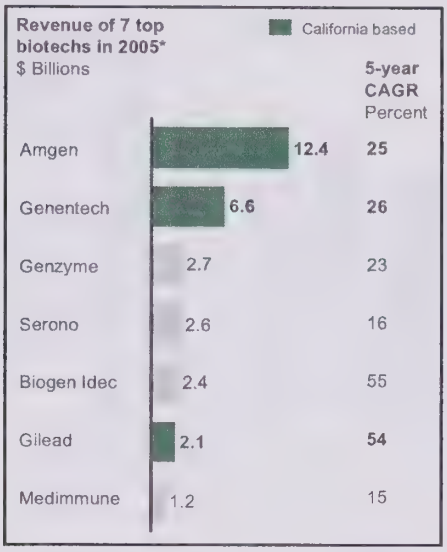
	No. of biotech firms*
1. San Diego	111
2. South San Francisco	31
3. Carlsbad	18
4. Palo Alto	18
5. Mountain View	13
6. *Alameda*	*12*
7. *Hayward*	*11*
8. La Jolla	11
9. *Fremont*	*10*
10. Irvine	9
⋮	
25. Oakland	***4***

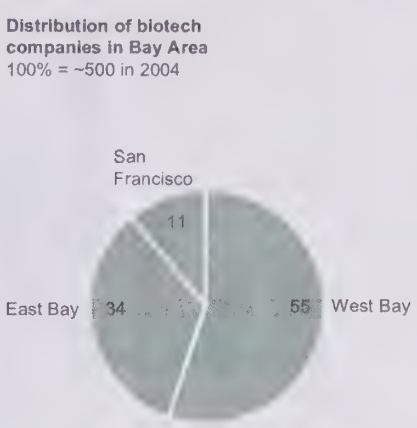
* In operation as of July 1, 2002; Emeryville has since attracted numerous biotech firms

Source: University of California Technology Transfer Office, *Assessing the Role of the University of California in the State's Biotechnology Economy* (March 24, 2003)

Exhibit 10

REVENUES OF TOP BIOTECH FIRMS AND DISTRIBUTION OF FIRMS IN THE BAY AREA



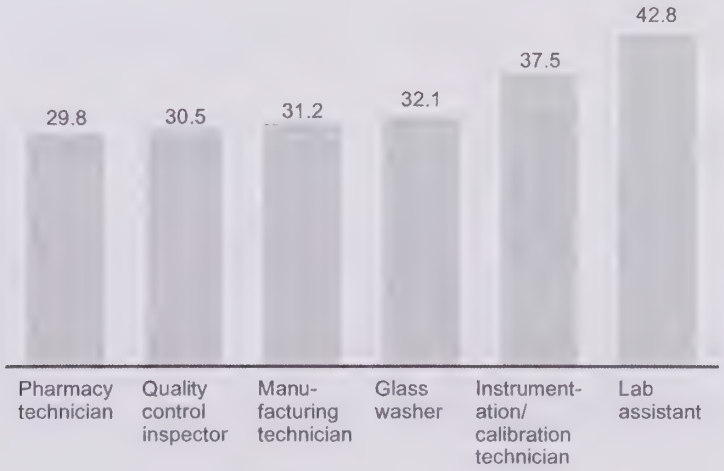


* Includes those on the "top 10 list" in 2001 and 2005
Source: Research Insight Global Vantage; Burrill & Company; Bio 2004 Newsroom – www.bio.org

Exhibit 11

SELECT BIOTECH JOBS REQUIRING A HIGH SCHOOL DEGREE ONLY

Median salary in City of Oakland, 2007
$ Thousands



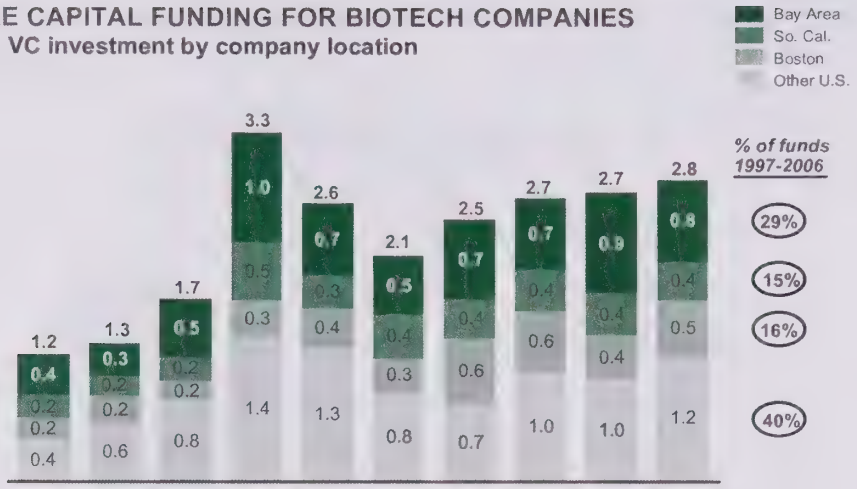
Note: List of jobs is not exhaustive
Source: Salary.com

Exhibit 12

VENTURE CAPITAL FUNDING FOR BIOTECH COMPANIES

Total U.S. VC investment by company location

$ Billions



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
% biotech in CA	50	38	45	48	38	46	45	40	49	40
% biotech of all VC	8	6	3	3	6	10	12	12	12	11

Source: VentureXpert

The biotechnology market is hot and investor interest keen. Private industry, venture capital firms, federal granting agencies, and nonprofit foundations are seeking opportunities to fund biotechnology endeavors. Indeed, the market is so tempting to investors right now that even such a conservative equity player as Wells Fargo has announced creation of a biotechnology investing group. [Exhibit 12]

Spillover effects from biotechnology can be very significant. Research from the Milken Institute (Exhibit 13) estimates that each biotechnology job in California will create 3.5 new jobs in related sectors. For example, a biotechnology firm will engage local legal and accounting firms, seek suppliers, require transportation services, increase airport usage, and so on.

Similarly, the multiplicative contribution of indirect and induced earnings is nearly three times direct earnings, where "indirect" impact represents the jobs, wages, and products/services needed from suppliers to support both its own employment and its products; and "induced" impact represents the higher income available to be spent in the local economy – for every kind of goods and services – due to higher employment and wages in these supplier industries. [Exhibit 13]

Real output per job on average is about $137,143 – a very high productivity figure. Once this output circulates through the indirect and induced dimensions of the economic cycle, it is multiplied by a factor of about 2.2. As for tax revenue implications, the aggregate contribution to tax receipts from California biotechnology in 2003 was $6.8 billion, with the state benefiting by $1.4 billion of that amount.

Exhibit 13

ESTIMATED ECONOMIC IMPACT OF BIOTECH IN CALIFORNIA

	Direct	Indirect*	Induced**	Total
Jobs Thousands	70.0	135.9	111.3	317.2
Earnings $ Billions	5.2	5.7	4.2	15.0
Real output $ Billions	9.6	6.3	5.3	21.2
Real output per job $ Thousands	137.1			

Tax revenue $ Billions	
State income tax	1.4
Federal income tax	3.8
Sales tax receipts	0.4
Corporate income tax revenue	1.3
Total	**6.8**

* **Indirect** impact represents the number of jobs, wages, output generated from all supplier industries necessary to support employment and output in biopharmaceuticals

** **Induced** impact represents the higher income available to be spent in the local economy due to higher employment and wages in these supplier industries as they ripple through the state's economy leading to more purchases of goods and services

Source: Economy.com; BLS; BEA; Tax Foundation; *2003 Biopharmaceutical Industry Contributions to State and U.S. Economies* (October 2004), Milken Institute

SPACE IS KEY DRIVER OF BIOTECHNOLOGY LOCATION DECISIONS

A key driver for where biotechnology firms choose to locate themselves is the availability of biotechnology-specific facilities, given the availability of local talent. A 2006 survey found five leading factors influencing companies' decisions on where to locate[10]:

1. Availability of talent
2. **Availability of appropriate facilities**
3. Labor costs
4. Available and affordable housing
5. Taxation rates.

The same survey also found that biotechnology companies are looking to expand:

- 13 percent of Bay Area biotechnology companies expanded their outside-California **general and administrative** activities in 2005, and 17 percent expect to expand those activities in the next 2 years
- 32 percent expect to expand their out-of-state **research and development capacity** in the next 2 years

10. "California's Biomedical Industry," The California Healthcare Institute and PricewaterhouseCoopers, 2006.

- 74 percent expanded their out-of-state **manufacturing capacity** in 2005, and 97 percent intend to in the next 2 years.

Indeed, the full range of biotechnology firms is looking for space: 40 percent of start-ups, 64 percent at mezzanine development, and 20 percent of mature firms. [Exhibit 14] Demand for biotechnology space is intense, and biotechnology companies are often willing to pay premium lease rates for turnkey facilities. If Oakland were to offer space and reasonable pricing, the presence of other biotechnology companies near Oakland and proximity to UC Berkeley could only enhance Oakland's attractiveness.

Young companies are clamoring for small, affordable wet lab space they can rent and use for short periods of time until they either expand or fold. However, because biotechnology companies require highly specialized facilities, it takes on average 5 years to develop a site.[11] Building a wet lab requires elaborate plumbing and piping to accommodate tanks, vats, tubs, sinks, showers, and special ventilation. All this must be permitted by local governments, which can be arduous and time intensive.

Wet lab facilities are very expensive to build, may have to be custom designed, and appear to represent a high-risk investment for private sector developers.[12] However, this is exactly where Oakland lost out in the late 1990s, when contractors and investors decided the risk was too great. But 73 percent of respondents on BayBio's 2006 Biotechnology Real Estate Survey[13] said they need straightforward administrative office space – the type of space that is easiest to provide. Biology labs for R&D are needed by 53 percent, and the same percentage need chemistry labs. And 26 percent need manufacturing facilities.

This adds up to high demand for affordable facilities. A biotechnology expert interviewee observed, "I could see biotech as a pure real estate play: 'If you build it, they will come.'" Oakland can build it – if it can summon the political will and necessary investment, and see to its land use policies.

OAKLAND IS WELL POSITIONED TO CAPTURE BIOTECH

Oakland's significant strengths in real estate and potential workforce, together with its solid healthcare presence and proximity to the University of California at Berkeley, offer a very appealing new home to biotechnology. The BayBio survey found the East Bay North region tied with the North Peninsula in desirable relocation attributes. The survey found that Oakland's strengths are considerable. [Exhibits 15, 16]

Oakland has a potential workforce. Oakland's relatively strong concentration of biological/life science students offers a potential workforce to support a biotechnology/life sciences cluster.

Students in Alameda County are enrolled in good numbers in life sciences and professional health sciences programs (Exhibit 17). In addition, the county's community colleges are conferring degrees at rates that compare favorably with San Mateo County's, where there is significant cooperation between the San Mateo County Community College district and biotechnology institutions. According to the California Postsecondary Education Commission, the health professions and related sciences hold 12 percent of the share of graduates in San Mateo County's community colleges; in the Peralta Community College District, this share is 8 percent, a figure that has significant room to grow – especially if private companies can enter into cooperative partnerships with the colleges to stimulate

11. BayBio, "2006 Bay Area Biotechnology Real Estate Survey."
12. "Taking Action for Tomorrow," Office of the Governor; Bay Area Council, Bay Area BioScience Center, and the Monitor Group, 2003, p. 27.
13. With 55 companies distributed around the Bay Area responding.

Exhibit 14

SPACE REQUIREMENTS OF BIOTECH FIRMS IN BAY AREA AT 3 STAGES OF DEVELOPMENT

	Start-up 40% looking for space	Mezzanine 64% looking for space	Mature 20% looking for space
Current lease rate ($/sq. ft.)	2.22	1.93	1.76
Current lease (years)	5	6	8
Space composition			
Other/empty	8	8	7
Prod./mfg.	4	15	4
R&D	50	29	31
Office	38	47	54
Building age (years)	30	23	9
Tenant improvement $/sq. ft. (2001-06)	58	87	120
Gross sq. ft./employee	476	461	405

Source: BayBio: 2006 Bay Area Biotechnology Real Estate Survey

Exhibit 15

"SCORECARD" FOR OAKLAND AS A BIOTECH LOCATION

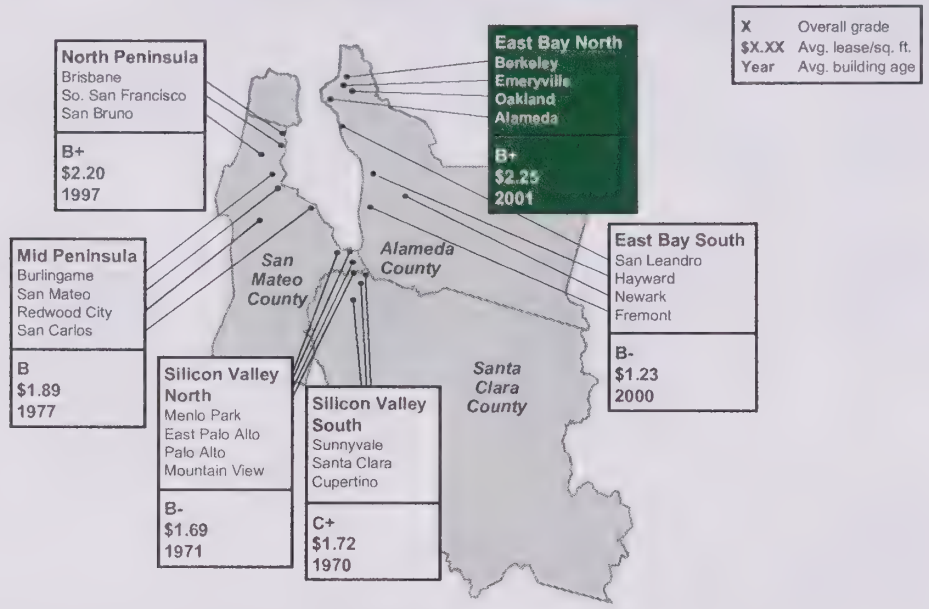
Location decision criteria	Estimated "grade" for Oakland*	Strengths	Weaknesses	Examples locations receiving an "A"
Workforce	B	• Potential partnership with UC Berkeley/Peralta • Some expertise from Kaiser • UC system increasingly focused on biotech/healthcare	• Need for vocational and higher education to match job availability	Research Triangle (North Carolina Biotech Center)
Infrastructure	B+	• Favorable lease rates • Available sites • Berkeley is site constrained	• Limited entrepreneurism • Need to build sites • Lack of research funding	Silicon Valley
Quality of life	C	• Central location • Sports teams • Good weather	• High housing costs • Lack of retail • Reputation for high crime	Minneapolis-St. Paul
Support services	B+	• Proximity to other funding sources • Close to other business services	• Limited funding relative to region	Silicon Valley
Public policy	C	• Responsiveness to social issues	• Not as responsive to corporate issues	Alabama/Texas
Ease of doing business	C	• Not as friendly as San Jose	• Need political will	Michigan
Market	B	• Strong national distribution capabilities	• Slower market growth	Atlanta
OVERALL	**B+**			

* Subjective evaluation based on analyses of empirical data, interviews with companies in Oakland and site-selection companies, and team problem solving

Source: *Places Rated Almanac*; news stories; interviews; BayBio: 2006 Bay Area Biotechnology Real Estate Survey

Exhibit 16

BIOTECH REAL ESTATE RATINGS FOR BAY AREA SUBREGIONS



Source: BayBio: 2006 Bay Area Biotechnology Real Estate Survey

enrollment, provide internships for students, potentially offer faculty exchange arrangements, and if appropriate, underwrite part of the program costs. [Exhibit 17]

It is very important that colleges communicate to students the needs biotechnology companies have, and the training and career opportunities biotechnology can provide. Professional organizations can help keep colleges up to date and can provide information to high schools, workforce agencies, and the community. Regionally, there are strong programs, but nothing in Oakland. Ohlone Community College in Fremont is doing an excellent job with its biotechnology program, which was modeled on that of Skyline Community College in San Mateo County. There is hope of having a pilot biotechnology training program at Laney College in Oakland this fall, but it is only just starting.

Finally, Oakland has the favorable lease, vacancy, and rental rates that will be attractive to biotechnology companies. [Exhibit 18]

San Francisco has been proactive in strategically positioning itself to capture more biotechnology by building out the Mission Bay area south of Market. Of 6 million square feet set aside for commercial space at Mission Bay, Alexandria Development, a nationwide builder of incubators for labs and biotechnology research, bought 2.1 million square feet.[14] Mayor Newsom has been successful in luring some big anchor tenants.

While the attractiveness of Mission Bay offers some competition to Bay Area cities trying to win biotechnology companies, Oakland represents an attractive opportunity for biotech companies desiring to locate themselves near UC Berkeley.

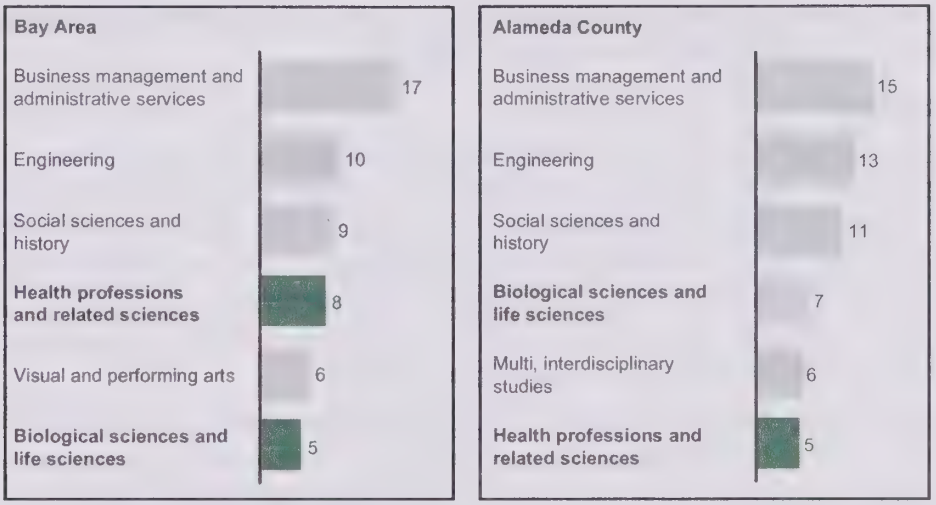
Given the nature of the market opportunity, Oakland should take steps to attract biotechnology

14. David Prowler, "From Railyard to Neighborhood: The Rise of Mission Bay," SPUR Newsletter, 2005 (www.spur.org).

Exhibit 17

SHARE OF POST-SECONDARY GRADUATES BY DISCIPLINE FOR BAY AREA AND ALAMEDA COUNTY, 2005

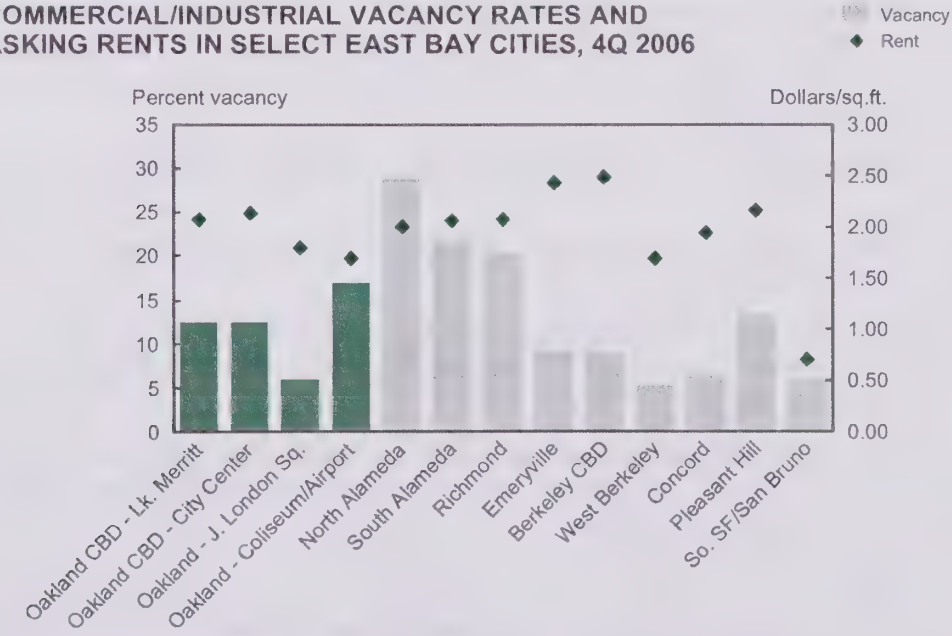
Percent of graduates



Source: California Postsecondary Education Commission

Exhibit 18

COMMERCIAL/INDUSTRIAL VACANCY RATES AND ASKING RENTS IN SELECT EAST BAY CITIES, 4Q 2006



Source: NAI BT Commercial Quarterly Reports

companies, at first by developing small sections of land for biotechnology office space and labs, and by promoting curriculum development in local colleges.

STEPS TO DEVELOP THE BIOTECHNOLOGY SECTOR

In order to attract biotechnology companies, Oakland should work collaboratively and consider the following actions, which include removing some barriers.

Short-term actions:

- First, the City of Oakland should designate a **biotechnology liaison/manager** who would recruit biotechnology companies and essentially help them accelerate through the Oakland bureaucracy (in the same way Dina Mackin is doing in San Francisco for clean tech; see Chapter 7). This liaison would maintain relationships to develop a pipeline with Technology Transfer offices at the University of California and at Stanford, to ensure that budding startups know Oakland desires them and has available space. This person should have the authority to direct planning and redevelopment staff.
- **Identify existing office space for a few biotechnology offices,** which would take little conversion time, little investment, and would be low risk. Focus on attracting a single, key tenant who will attract others. Look at space near the periphery of Emeryville or in proximity to Oakland's existing research and hospital facilities (Children's Hospital Research Institute [CHORI], Summit, and Kaiser) to capture expansion spillover from anchor biotechnology companies like Novartis.
- **Consider a small incubator** housing 6 to 10 businesses, with a minimum of 2,500 to 3,000 square feet each.
- At the same time as inviting smaller companies, court a few larger companies to place manufacturing and/or office space, as, for example, for finance and other support functions that require some proximity to main sites in South San Francisco or elsewhere, but do not require it on a daily basis.
- Begin reclaiming and remediating industrial sites to develop for biotechnology labs (5-year horizon).
- Sustain a biotechnology-ready workforce by means of encouraging focused curricula in local post-secondary education:
  - Promote collaboration between biotechnology companies and local colleges to develop curricula that train students for biotechnology-specific roles (e.g., Genentech with Skyline in San Mateo county)
  - Continue to promote a biotechnology-focused curriculum in local post-secondary education, and explore curriculum partnerships between UC Berkeley, UCSF, Cal State East Bay, and the Peralta colleges.

Medium-term actions

- Complete the construction of a few biotechnology-specific sites

- Improve the amenities in the areas surrounding biotechnology and related facilities, e.g., introduce retail that can support biotechnology workers and professionals, introduce restaurants and amenities near facilities.

Long-term actions

- Foster collaboration with healthcare to promote a biosciences cluster.

CHAPTER THREE
HEALTHCARE SECTOR STRATEGY

The other partner with biotechnology in Oakland's eventual life-sciences cluster is healthcare. Healthcare is the fastest growing sector in the US. Including all providers of health-related care (doctors, hospitals, clinics, HMOs, psychologists, etc.), all institutional payors, all manufacturers and suppliers of goods and equipment (the pharmaceutical industry, their research and development, marketing, and distribution), wholesale and retail entities, and health charities, the sector is immense – contributing 12 percent of US employment in 2006.[15] In 2000, healthcare's share of GDP was about 7 percent; that share is projected to more than double by 2012. [Exhibit 19] And a steep rate of growth is expected to continue beyond that, with many economists estimating that by 2030 healthcare expenditures could amount to 25 percent of US GDP.

More spending, of course, means more jobs – which represents both good and bad news. The bad news is that such a concentration of employment in a single sector could limit growth in other sectors, a situation that would work against the nation's economic health overall. But the good news speaks to cities like Oakland: Here is a job engine – seize it.

This chapter looks at the growth in healthcare nationally, at the stagnation in Oakland, and, specifically, at how an increasing number of uninsured patients affects the growth of this sector. Despite this phenomenon, a number of key opportunities exist for Oakland to leverage and strengthen its existing healthcare assets. This chapter also explores these.

HEALTHCARE REPRESENTS AN INCREASING SHARE OF THE NATION'S OUTPUT

As stated above, while US healthcare expenditures grew at a steady rate from 1990 to 2000, healthcare spending as a percent of GDP has grown sharply in the past 5 years and is expected to continue growing at a steep rate. Exhibit 19 displays projections to 2012, when healthcare-related expenditures will contribute around 16 percent of GDP.

This rise in healthcare-related expenditures has been matched by unprecedented job growth. The sector has added 1.7 million jobs nationally since 2001, according to the Bureau of Labor Statistics. If healthcare spending indeed tracks estimates, 30 to 40 percent of all new jobs created over the next 25 years will be in healthcare.[16] Exhibit 20 shows the industries where the big employment growth has occurred.

Bay Area demographics will exaggerate the national trend

The region's high proportion of Baby Boomers, which exceeds the national average, will accelerate the increase in spending on healthcare, largely because Boomers will increase demand for healthcare products and services. [Exhibit 21]

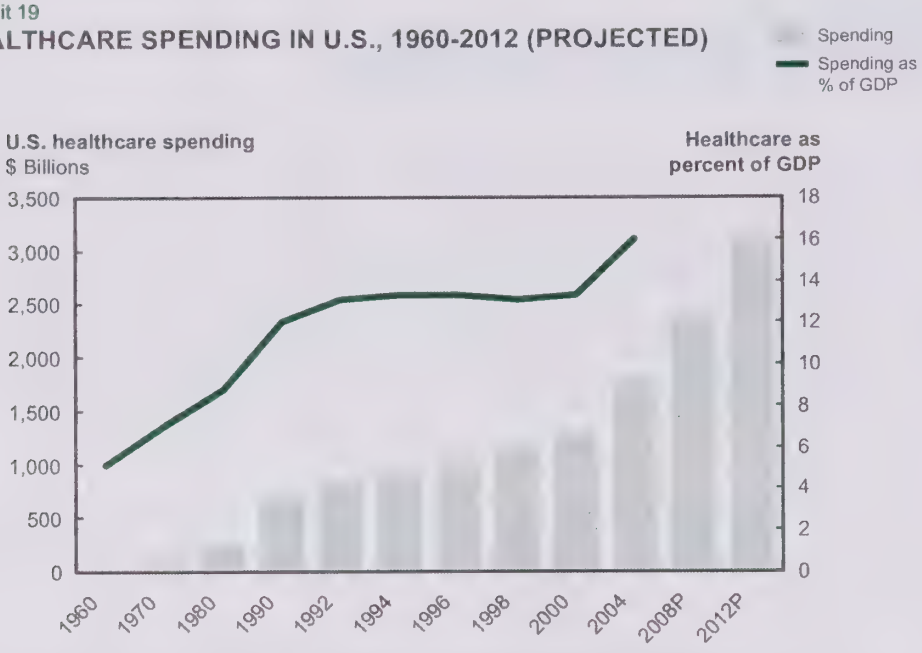
In 1994, the US and Bay Area had the same percentage of people in the 45 to 64 age band (20 percent). But the next younger band, which includes the bulk of the Boomers (born 1945 to 1964, Boomers were 30 to 50 years old in 1994) was bigger for the Bay Area (32 percent versus 36 percent). In the 2004 column, the early wave of Boomers, who in 2004 were 40 to 60 years old, was moving into the fourth age band. As that cohort ages, the increased demand they exert will stimulate job growth.

15. By contrast, the sector figures we use to compare Oakland with Bay Area and US concentrations and growth rates are contributed only by the provider subsector; by this measure, the US concentration is 11 percent, not 12 percent. See Chapter 1 for more detailed definition of components.

16. "What's Really Propping Up the Economy," Businessweek, September 25, 2006. Jobs in healthcare-related fields could reach 15 to 16 percent of US employment by 2030.

Exhibit 19

HEALTHCARE SPENDING IN U.S., 1960-2012 (PROJECTED)

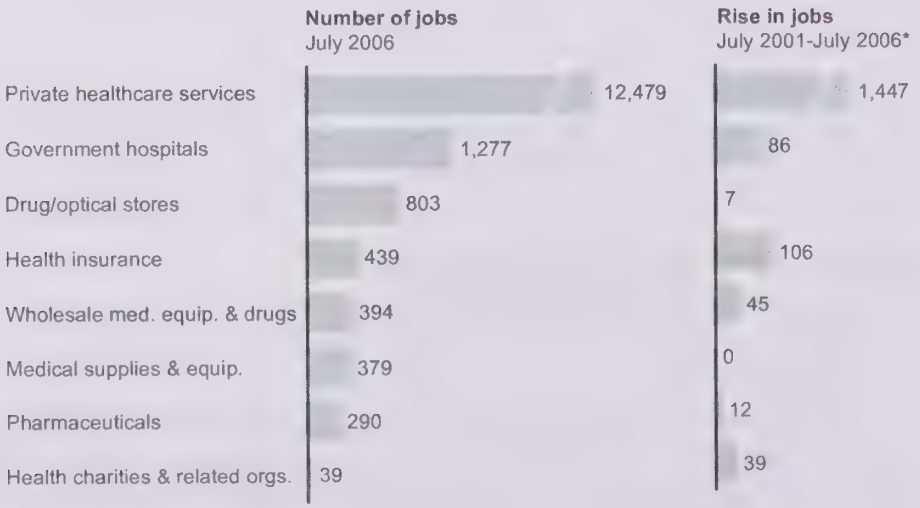


Source: Centers for Medicare and Medicaid Services; Office of the Actuary; National Health Statistics Group

Exhibit 20

U.S. EMPLOYMENT IN HEALTHCARE-RELATED INDUSTRIES

Thousands of jobs

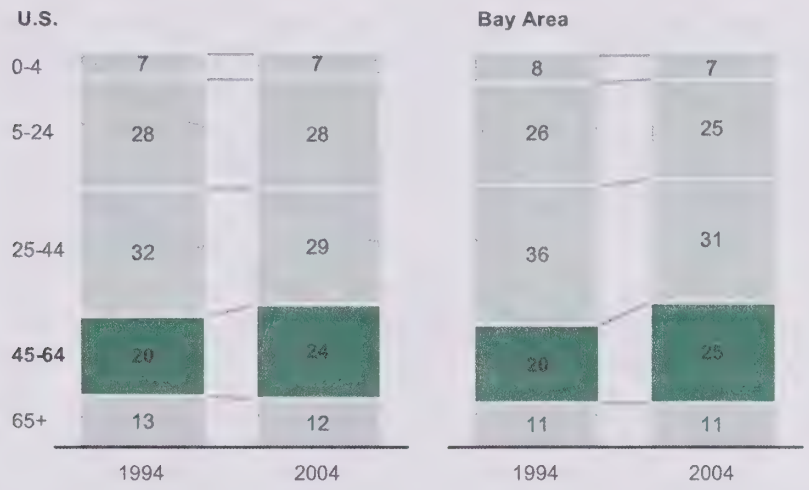


* Average for 12 months ending July 2006
Source: Bureau of Labor Statistics

Exhibit 21

AGE DISTRIBUTION OF U.S. AND BAY AREA POPULATIONS, 1994 VS. 2004

Percent in age group



Note: Some columns do not total 100% due to rounding errors
Source: U.S. Census Bureau; McKinsey analysis

California healthcare jobs will increase faster than US

California projects high demand for skilled professionals in healthcare-related fields. As one example, the number of nurses needed in California over the next decade will be much higher as a percentage than the national average. However, at the same time, projections for meeting that number fall short all across the country. California's shortage will also be greater as a percentage of need than the nation's. [Exhibit 22]

In 2015, the US is forecast to have 80 percent of the nurses it will require, while California is expected to have only 66 percent of its nurse requirements. And in 2020, the US will have 71 percent of the nurses it needs, while California will only have 54 percent. This higher-than-average nursing shortage in California is due to state legislation, which was the first of its kind, requiring all hospitals to meet specific nurse-to-patient ratios by specific deadlines. Both critics and supporters of this legislation abound.

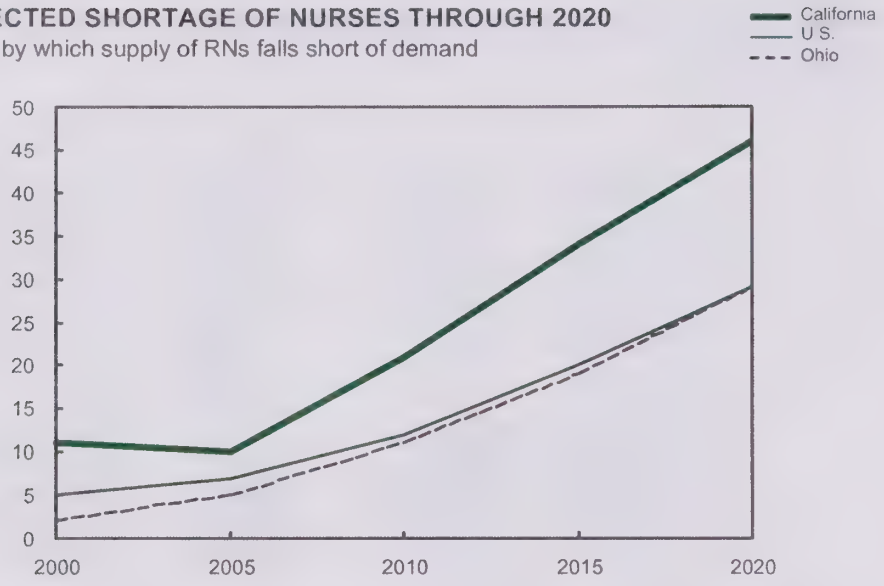
While some healthcare leaders have expressed disdain for such requirements, citing misdirected legislation or the arbitrariness of a ratio, other leaders have been proactive and exceeded the requirements ahead of schedule. Nevertheless, Oaklanders looking for careers in nursing can see this as a positive opportunity as demand is likely to remain strong, and could become stronger if other states adopt similar legislation.

Other national trends in healthcare employment will similarly be magnified in the Bay Area. Healthcare offers career paths at every level of educational achievement and welcomes people without higher degrees. Exhibit 23 shows current salaries in Oakland for jobs requiring only a high

Exhibit 22

PROJECTED SHORTAGE OF NURSES THROUGH 2020

Percent by which supply of RNs falls short of demand



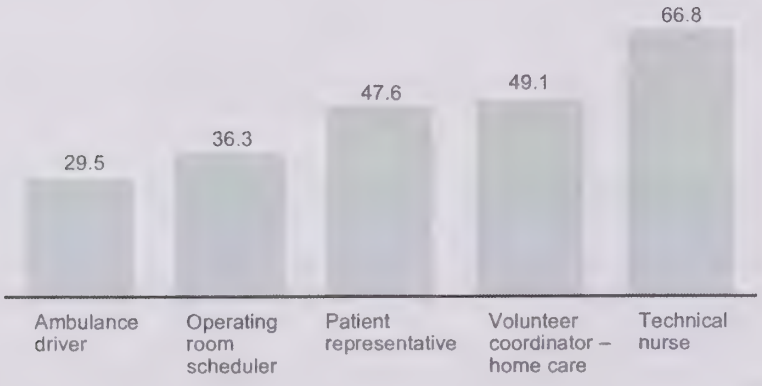
Source: *Projected Supply, Demand, and Shortages of Registered Nurses: 2000-2020*, July 2002, U.S. DHHS, HRSA, Bureau of Health Professions, National Center For Health Workforce Analysis; National Council of State Boards of Nursing; Center for the Health Professions, UCSF; Center for the Health Professions, Health Workforce Tracking Initiative, 2006

Exhibit 23

SELECT HEALTHCARE JOBS REQUIRING A HIGH SCHOOL DEGREE ONLY

Median salary in City of Oakland, 2007

$ Thousands



Note: List of jobs is not exhaustive
Source: Salary.com

school diploma or the equivalent. Technical nursing tops the list at an average salary in Oakland nearing $67,000.

OAKLAND'S HEALTHCARE SECTOR HAS NOT KEPT PACE

The healthcare sector of Oakland's economy has stagnated, as evidenced by its nearly flat growth rate of 0.1 percent annually compounded over the period 2001 to 2006.[17] During the same timeframe, on a compound annual basis, the US and Bay Area both grew their healthcare employment by 2.5 percent and 1.3 percent, respectively. In 2005, where benchmarking data for comparable cities exist, Oakland's share of employment in healthcare equaled that of Long Beach at 13 percent, compared to 18 percent in Pittsburgh, Baltimore, and Cleveland (Exhibit 24). Oakland's 5 percent lower share warrants further analysis.

An immediate difference is that Baltimore, Pittsburgh and Cleveland have very highly rated university health centers focused on research. Baltimore has the Johns Hopkins Hospital and Health System while Pittsburgh has the University of Pittsburgh Medical Center with its tens of thousands of employees who serve millions of patients each year. Cleveland is home to the Cleveland Clinic Heart Center affiliated with Case Western Reserve University. U.S. News & World Report consistently ranks these hospitals among the best hospital systems in the country.

A world-renowned medical research institution pulls in massive amounts of research funding. Funding from private and public sources (e.g., NIH) enable hospitals to hire more employees, launch more research projects, invest in more equipment, and gain new knowledge that is used to expand and/or improve service to more patients, which then creates a virtuous cycle of growth. While some of these funds spill over into the local economy, the more important result is that these hospitals are able to draw in patients from communities beyond their immediate locales.

The Cleveland Clinic Heart Center is a case in point. Founded in 1921, it is one of the largest not-for-profit cardiovascular specialty groups in the world. U.S. News & World Report has ranked it the number one heart center in the nation since 1995. It receives $220 million in annual research funding a year. In 2005, it had over 2.9 million patient visits drawn from more than 100 countries and 50 US states. The Clinic has been so successful in pioneering new treatments and procedures that rising demand has caused them to outgrow their original location and expand into nearby areas. Furthermore, the Clinic receives numerous referrals for the most complicated cases and accepts referrals for tertiary and quaternary care from nearby regional hospitals. Similar situations exist for Johns Hopkins and University of Pittsburgh.

OAKLAND CAN GROW ITS HEALTHCARE PRESENCE

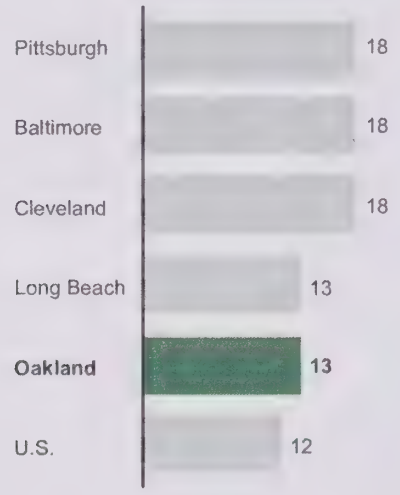
Oakland has significant healthcare assets that could be better leveraged and made more visible.

Better leverage existing assets

While Oakland does not have an equivalently sized, academic medical center with international recognition like Cleveland, Baltimore, or Pittsburgh, it does have an abundance of other notable healthcare assets that go unnoticed in the shadow of its more recognized peers in the Bay Area. Oakland does not need an academic medical center to grow and continue prospering; it has plenty of strengths available today from which to carve out growth strategies.

17. All growth rates are compound annual growth (CAGR) for the period 2001 to 2006, unless otherwise stated.

Exhibit 24
HEALTHCARE EMPLOYMENT IN OAKLAND VS. BENCHMARK CITIES, 2005
Percent of total employment



Source: California Employment Development Department

Oakland's existing care providers are some of the most highly ranked in the country. A first step in leveraging these providers and other assets in Oakland and the East Bay is identifying them in greater detail. Once the region's collective assets are compiled, they can be better branded as establishing Oakland and the East Bay as a Center of Excellence in Healthcare.

A brief and non-exhaustive inventory of accolades bestowed on unique assets belonging to Oakland healthcare providers include:

- Alta Bates Summit Medical Center is recognized in 2007 as being in the top 5 percent of non-federal hospitals in the nation for Clinical Excellence
- Children's Hospital & Research Center Oakland is the only independent children's hospital in Northern California and home to one of four ferritometer diagnostic machines in the world, which measure levels of iron stored in the body. The hospital also has the only nonprofit cord blood bank in the US. (Many national healthcare trends impacting adult hospitals outlined in this chapter do not necessarily apply to children's hospitals due to their focused patient base.)
- The Health Resources and Services Administration (HRSA) nationally recognized Alameda County Hospital in 2006 for its leadership in organ donation; the California Association of Public Hospitals and Health Systems (CAPH) for its innovative "Asthma Lounge," which provides rapid access respiratory therapy services in the emergency department; and a Language Access Technology Leadership Award for their national leadership in serving limited English proficiency patients.

Fortunately, the healthcare offerings in Oakland are as diverse as its residents. Nearly every type of provider model exists, from public county hospitals, HMOs, a children's hospital, VA clinics, private free-market hospitals, mobile dental clinics, etc. Many of these providers have developed innovative delivery models or high levels of quality service to meet the needs of a diverse patient base.

Better highlight existing strengths

Oakland can do a better job of highlighting its existing strengths and being more collaborative with its academic research centers across the Bay to brand itself a regional Center of Excellence. Some healthcare centers in Oakland should seek more outlets to gain regional, national, and international recognition and thereby gain a stronger reputation. For example, winning high-profile accolades, such as the Malcolm Baldrige National Quality Award in the healthcare category, would go a long way toward demonstrating unparalleled excellence. In turn, such an award would attract new patients.

Raising awareness about Oakland's healthcare assets to its residents, daytime workers, and surrounding community residents who migrate out to other cities for their healthcare needs would help Oakland reclaim market share from other communities.[18] In addition, institutions with enhanced reputation are more attractive to high-quality physicians and specialists who, when recruited, in turn attract patients.

Other tactics for collaborating with the biotechnology industry to create a life sciences cluster are discussed later in this chapter.

INCREASING UNINSURED POPULATION COULD UNDERMINE OPPORTUNITIES

Across the US, the increasing number of individuals without health insurance or the means to pay for healthcare is hampering the ability of both providers and facilities to expand and provide quality care to those who need it. In healthcare markets, the providers of care are increasingly shouldering the financial burden of paying for the care provided to those either without insurance, or without adequate insurance. Because of nonpayment or underpayment, providers absorbed a stunning total of $41 billion in unpaid care in 2004. [Exhibit 25]

In geographic areas with a large concentration of lower socio-economic status (SES) residents, the burden can be greater. The sheer weight can set a vicious cycle in motion, wherein the number of uninsured people increases and places an increasing cost burden on providers. Exhibit 26 illustrates the dynamics affecting providers' economics. We see that the commercial payor segment is projected to shrink over the next 20 years, largely due to Baby Boomers retiring and transitioning to Medicare as their primary payor. Yet for providers, the commercial payor segment is the only one that makes a positive margin contribution.

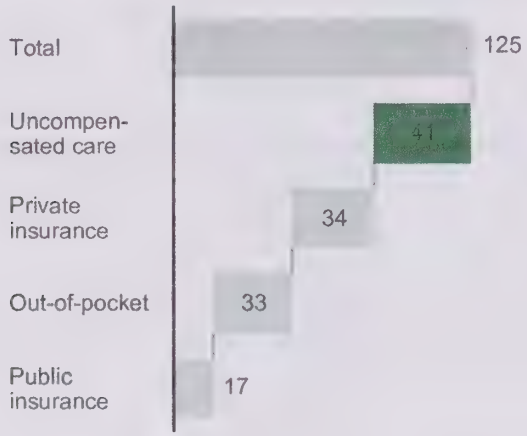
This dynamic can be a significant deterrent to providers locating in areas with high poverty. And providers are a core industry that brings spillover in the form of more pharmacies, optical companies, delivery services, lab services, professional support, and office jobs. In addition to its obvious costs to individual well being, poverty exacts still another cost on the healthcare system. Poverty worsens healthcare outcomes when the uninsured forego care because of its expense. Uninsured people are far less likely to get the care they need in a timely fashion. [Exhibit 27] If after foregoing care people are later forced to seek care for a deteriorating condition, the costs will be higher and the chances of successful outcomes lower. Thus, a cycle of medical need and corresponding higher costs is worsened.

18. Quantitative data on out-migration was not available for this study, but multiple interviewees, including physicians, cited it anecdotally as an area where Oakland could do better.

Exhibit 25

ESTIMATED U.S. HEALTHCARE COST OF UNINSURED, 2004

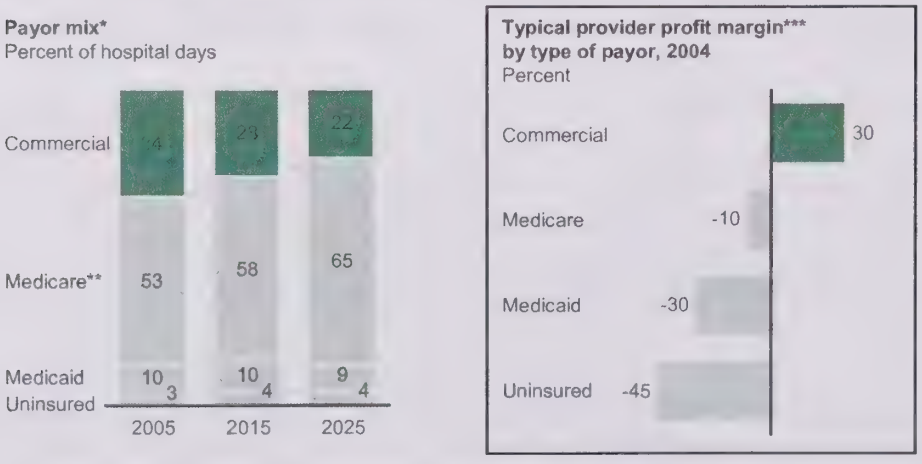
$ Billions



Source: Kaiser Commission on Medicaid and the Uninsured

Exhibit 26

IMPACT OF LOWER-SES POPULATION ON PROVIDER PROFITS



* National median for community and government acute care hospitals; does not include psychiatric, rehabilitation or children's hospitals

** Includes managed care portion of Medicare

*** Disguised McKinsey client example

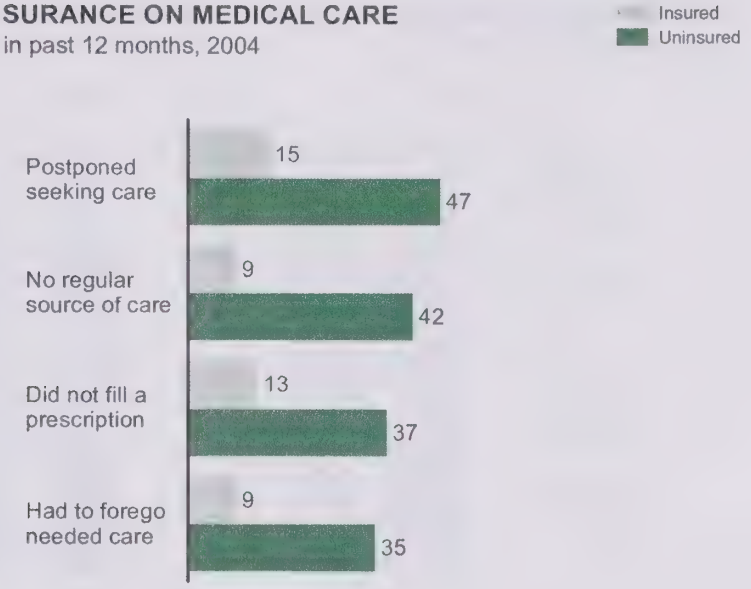
Note: Growth assumes relatively constant proportion of Medicaid coverage, with growth in Medicare and uninsured based on CMS and EBRI projections; change to commercial portion based on remaining population not included in other categories; assumes no change in relative utilization levels by segment

Source: Health Data Insights; Financial Compass; CMS; EBRI, McKinsey analysis

Exhibit 27

IMPACT OF NO INSURANCE ON MEDICAL CARE

Percent experiencing in past 12 months, 2004



Source: Kaiser Commission on Medicaid and the Uninsured

Historically, the numbers of uninsured and underinsured people have tended to increase as the size of lower SES populations increase. While the size of the two lowest SES brackets decreased between 2000 and 2005 in the US, they actually grew in Oakland over the same period. [Exhibit 28]

Compounding the situation, it now appears that higher SES groups in California are increasingly underinsured. [Exhibit 29] While many of these individuals will be able to pay providers in full, many costs for catastrophic medical events incurred by this population will likely be shifted to providers.

HEALTHCARE RESOURCES AND OPPORTUNITIES

Oakland can create new jobs in healthcare. Alameda County has a strong base of educational institutions that can prepare students for careers in healthcare industries. As well, potential partnerships between healthcare, biotechnology, and the City can develop new opportunities.

Linking job demand to education resources can fuel growth

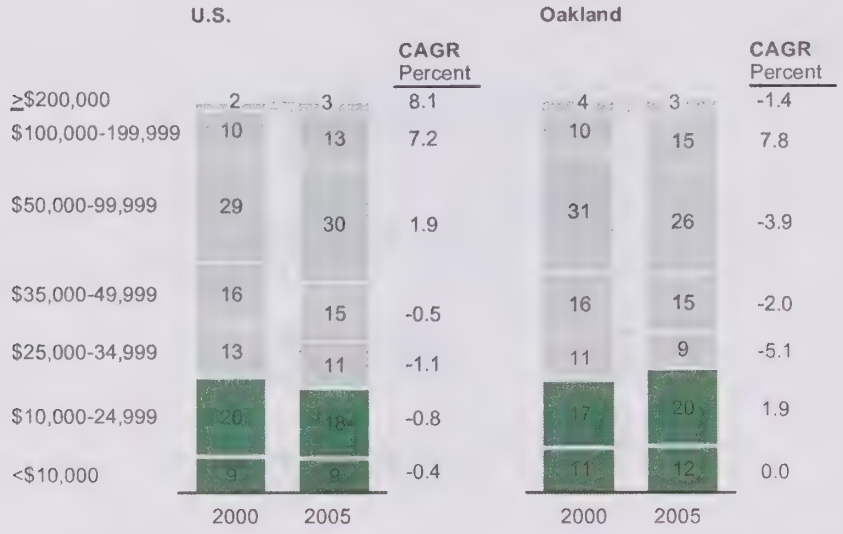
Oakland is seeing robust job growth in specific roles, such as respiratory specialists, biomedical engineers, and cardiovascular technicians. In Exhibit 30, these high growth rates are projected through 2012.

Oakland is positioned to provide a strong workforce to healthcare. Enrollment in the health professions and related sciences in Alameda County postsecondary institutions constitutes 5 percent of total enrollment, which compares to 8 percent in the Bay Area generally (Exhibit 31). But Alameda County's enrollments are rapidly closing in. Its enrollment figures reflect a growth rate more than double that of the Bay area generally: a 10 percent annual rate compounded from 2001 to 2005 in

Exhibit 28

MEDIAN HOUSEHOLD INCOME, U.S. AND OAKLAND, 2000 AND 2005

Percent in income bracket

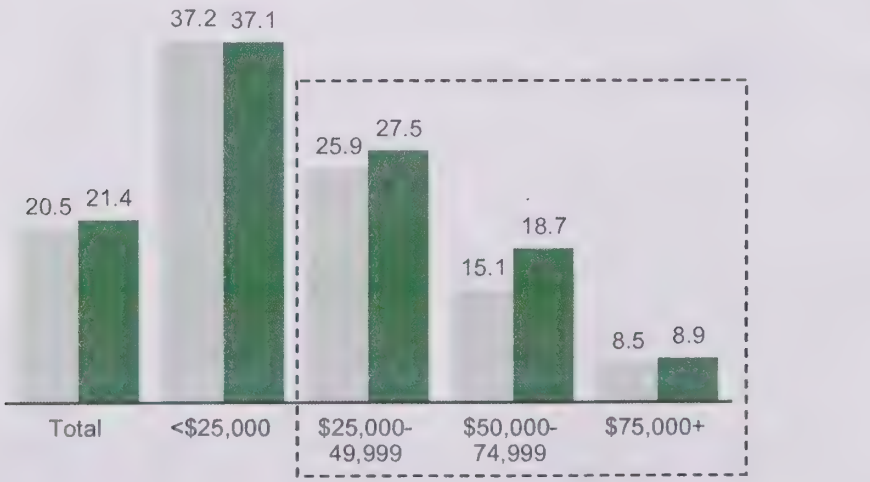


Source: U.S. Census Bureau 2000, 2005; Employee Benefit Research Institute

Exhibit 29

UNINSURED FAMILIES IN CALIFORNIA

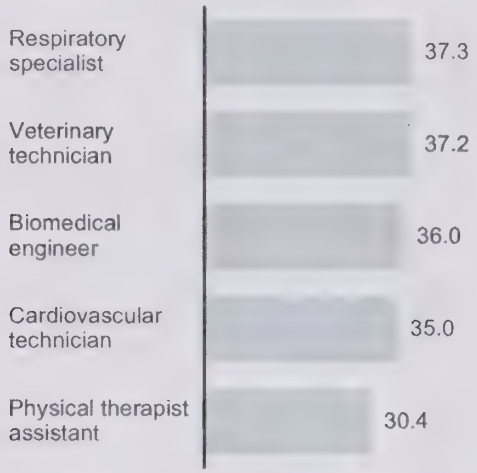
Percent of families in income bracket (2005 dollars)



Source: California Healthcare Foundation "California's Uninsured" 2006; Employee Benefit Research Institute estimates of the Current Population Survey, March 2001 and 2006 supplements

19. California Postsecondary Education Commission, 2001 to 2005.

Exhibit 30
FASTEST GROWING HEALTHCARE JOBS IN OAKLAND
Percent change 2002 to 2012, projected



Source: California Employment Development Department

Alameda County compared to 4 percent in the Bay Area.[19] And a greater percentage of Alameda County students now enroll in the biological and life sciences than in the Bay Area: 7 percent versus 5 percent. [Exhibit 31]

Comparative figures focusing on the community colleges in Alameda County suggest that more students could choose courses of study preparing them for health professions. Eight percent of Peralta Community College District students are enrolled in the health professions, a figure matching the Bay Area's share. But compared to the 10 percent growth rate of all postsecondary enrollments in the health professions in Alameda County, the county's community college enrollments in the health professions have been growing at only 7 percent.

Clearly, programs in the community colleges are demand driven; student enrollments determine program offerings. For example, foreign languages and literature have been growing at a rate of 63 percent over the same 5-year period. The implications are that the healthcare professions have a responsibility to inform students and colleges as to the opportunities available to students with appropriate life sciences training.

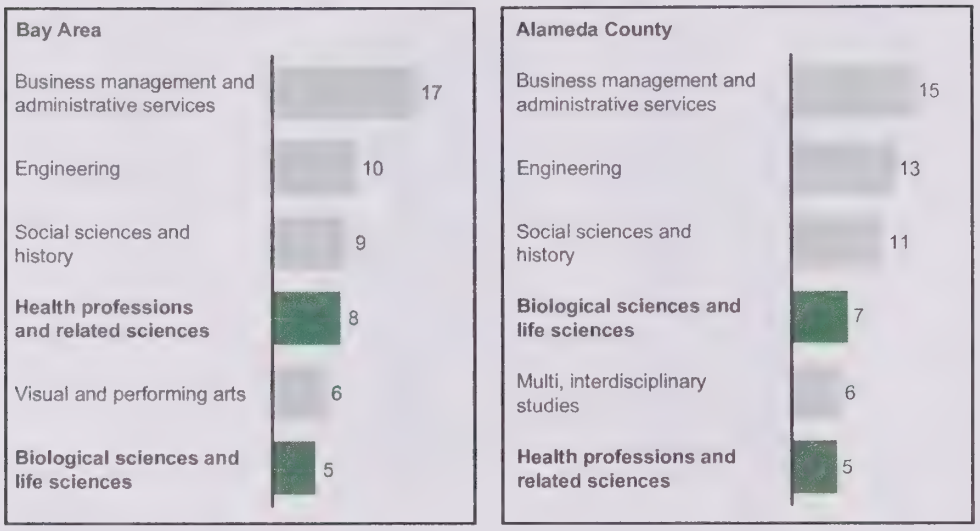
Partnerships between healthcare, biotechnology, and the City could drive growth

Another possible explanation of Oakland's slower growth in this sector is that it is home to only parts of the overall healthcare sector. Oakland's four hospitals, community clinics, and private medical groups make up the bulk of the employment in this sector locally. Other faster growing segments of the industry, like medical device development and manufacturing, pharmaceuticals, and research and development, are less present here and could be pursued to round out the region's life sciences cluster.

Exhibit 31

SHARE OF POST-SECONDARY GRADUATES BY DISCIPLINE FOR BAY AREA AND ALAMEDA COUNTY, 2005

Percent of graduates



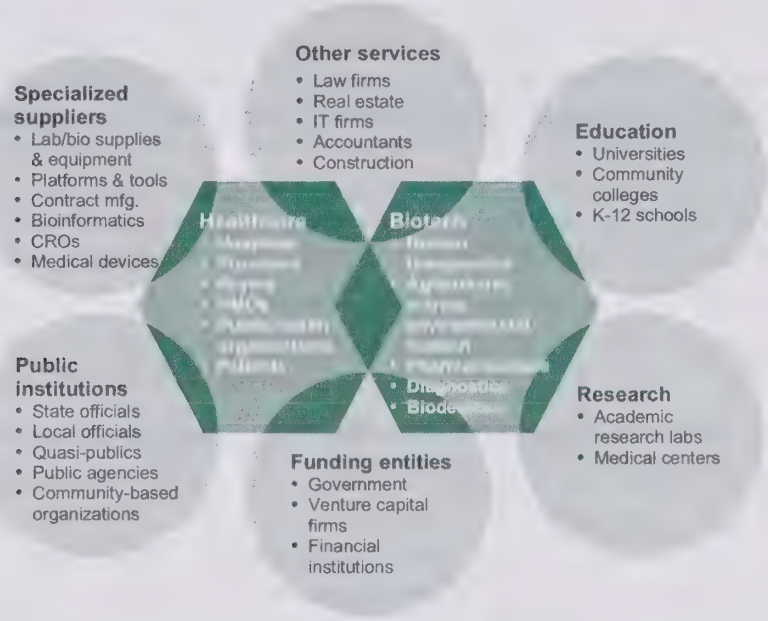
Source: California Postsecondary Education Commission

Key decision makers agree that there are opportunities for the healthcare sector to partner with the City and with biotechnology:

- "We would love to partner with the City and expand projects . . . like creating mobile dental facilities, increasing space for recruiting and training, expanding school-based sites."
- "The City needs to partner to expand projects and facilities in the area. Look at CHORI: they converted an old school into a great research facility."
- "I could see us using our healthcare skills to incubate biotechnology companies."
- "We need to facilitate alliances and partnerships with UC Berkeley, Cal State Hayward, Peralta colleges, and any out-of-state universities or private biotechnology companies for the creation of biotechnology training programs in Oakland. The payback for those institutions would be extra revenues, prestige and name recognition."

Together, biotechnology and healthcare could partner to drive growth. They could work collaboratively to identify grant support, acquire federal funding, drive new projects, and build facilities. Both industries share a common interest in encouraging high-quality science and technology programs in local colleges and universities, and in arranging internships, work-study programs, and the like. [Exhibit 32]

Exhibit 32
LIFE SCIENCES ECONOMIC CLUSTER CONCEPT



STEPS TO DEVELOP THE HEALTHCARE SECTOR

Action steps should involve all stakeholder groups whose efforts can impact the outcome: city, business, labor, community, and education leaders.

Short-term actions

- Immediately engage with existing hospitals on their facilities concerns and begin to address them. Set up a dedicated, empowered task force to streamline the process of rebuilding and upgrading in Oakland. Send the message to the industry that Oakland is serious, wants them, and will do whatever it takes: find new land, prepare it, entitle it, expedite the permitting process at both the local and state levels, etc.
- Sustain a healthcare-ready workforce by means of encouraging focused curricula in local postsecondary education:
  - Collaborate with healthcare companies to develop college programs that train students for health related roles.
  - Collaborate with local colleges and universities to develop research and training programs.
- Involve key stakeholders to manage relationships, identify potential facilities projects, and identify grant support for research/collaboration with biotechnology.

Medium-term actions

- Partner with local healthcare companies to build facilities and acquire federal funding
- Improve the amenities in areas surrounding the hospitals, community clinics, and other service providers (e.g., create mobile dental vans, expand school-based health facilities)
- Strengthen existing public health campaigns and launch new ones in partnerships with hospitals, OUSD, community clinics and others to improve health awareness among Oakland's residents.

Long-term actions

- Partner with local biotechnology companies and support services to create a bioscience cluster in Oakland.

CHAPTER FOUR
TRADE AND LOGISTICS SECTOR STRATEGIES

The principal drivers of the **trade and logistics** sector in Oakland are the Maritime Port of Oakland and the Oakland International Airport. Activities in warehousing, distribution, trucking, and related services round out the sector. With the dramatic increase in global trade of recent years, it would be expected that both the Maritime Port and the Airport have experienced rapid growth. While this is true of the Airport, the Maritime Port and its related activities have not grown commensurately, and the sector as a whole has actually lost employment at the rate of 2.1 percent annually since 2001.[20]

This chapter looks beneath these facts and other key measures for the Maritime Port of Oakland (the "Port") and the Oakland International Airport (OAK) in turn. It concludes with a set of recommended actions for growing this key Oakland sector.

MARITIME PORT: AN ASSET TO OAKLAND WORTH NURTURING

The Maritime Port of Oakland is one of the City's strategic advantages. It positions Oakland to capture some of the growth in the booming global logistics industry, and it offers particular advantages to companies whose manufacturing, warehousing and distribution operations are located in or near Oakland. From a competitive standpoint, it offers huge spillover benefits to Oakland, such as enhancing the City's image as an international gateway and offering an enriched slate of employment and training opportunities.

Maritime traffic to Oakland is growing, but the Port is underperforming primarily due to external rail constraints

The Port is presently not performing up to its full potential. It is underperforming compared to its peers, largely because capacity constraints, particularly the intermodal connection to major rail carrier routes and the transcontinental rail capacity for larger container volumes, have not been fully addressed. The trade and logistics sector has been losing employment at an annual rate of -2.1 percent (compounded 2001 to 2006[21]), with most of this loss centered in trade-related activity at and near the Port. Two often-cited reasons for maritime-related support firms leaving the Oakland area are: (1) they have been "zoned out" in favor of less industrial uses, and (2) they have been "priced out" of their prime, near-Bay property. As a result, a number have relocated into the San Joaquin Valley where property is more affordable.

Despite the Port's economic benefits, it is incumbent upon the Port to address significant environmental impacts on the community. In fact, to compete with other California ports for infrastructure bond funding and other state and federal resources for necessary improvements, the Maritime Port of Oakland will need to develop aggressive and comprehensive measures to reduce air pollution and other environmental impacts in surrounding communities. These issues also intensify the conflict between the costs and benefits of growth to the citizens of Oakland. Because while Port activity is generating noise and air pollution and contributing to traffic congestion, employment opportunities at the Port have gone to a large share of non-Oakland residents in surrounding cities such as Alameda, Emeryville, and San Leandro.

20. California Employment Development Department; see Exhibit 5 (Chapter 1).

21. All growth expressed as compound annual growth rate (CAGR) for the period 2001-2006 unless otherwise stated.

As stated, while maritime traffic to Oakland is growing, the Port is underperforming compared to its peers despite having invested nearly $1 billion over the last 8 years on infrastructure improvements to increase its capacity (deepening the channel to -50 feet, building new terminals and a joint intermodal rail facility). In terms of traffic volume, Oakland ranks fourth among North American container ports. While traffic to the top 10 ports has enjoyed an 8.2 percent growth rate compounded over 5 years (2000 to 2005), Oakland's growth has been below average at an annual rate of 5.1 percent over the same period.

Because Southern California ports are at or near full capacity and Oakland, in fact, has spare capacity, the Port has an opportunity to handle more shipping – but only if the necessary infrastructure can be capitalized, built, and mitigated environmentally. [Exhibits 33, 34]

Despite this excess capacity and the Port's prime location to capture booming Asian trade, Oakland is not anticipated to capture its fair share of the expected doubling in container traffic to the US by 2020 if current circumstances continue. (Estimates for 2007, due soon, are expected to increase the volume projected for Oakland.) [Exhibit 35] This may be largely because nearly all of Oakland's excess maritime capacity is in container trucking facilities, with very limited excess in rail intermodal facilities, the more cost-competitive option. So while demand is there, the opportunity for the Port to take full advantage of the Pacific Basin trade growth awaits only the development of more price- and service-competitive intermodal connections with the rest of the country.

Lack of rail connections constricting growth at Port of Oakland

Oakland currently has capacity to handle about 640,000 containers (or 35 percent of its total maritime container volume) via rail intermodal, the most economical means of long-distance container land transport. With railroad service only available for a small percentage of its volume, Oakland shippers must substitute the pricier option, trucking. Furthermore, because trucking is not cost-competitive at distances greater than 500 miles, the Port of Oakland mainly serves local markets in the Bay Area and Northern California for the majority of its traffic. By contrast, Los Angeles/Long Beach, Oakland's nearest competitors, can transport 50 percent of their ocean containers via rail intermodal; Seattle/Tacoma can transport 90 percent of theirs.[22] In trans-Pacific terms, the distances between these West Coast hubs are insignificant, so Oakland is in direct competition with these other more cost-effective and efficient ports for container traffic volume.

In addition, Oakland's current rail intermodal rates are high, relative to rates charged at other West Coast ports. The Port and the railroads are discussing this issue and anticipate resolving it as a result of increasing international traffic volumes and enhancing rail capacity. As Steve Gregory, senior strategic planner at the Maritime Port of Oakland explained: "It's a Catch 22...the railroads would lower rates if the demand to move intermodal containers were higher and shippers would send more intermodal containers through Oakland if the railroads would upgrade their level of service and lower unit prices. And, of course, the railroads won't upgrade Oakland service unless they know they are getting significant volume increases."

This paradox can only be unraveled through significant changes to the inputs. The Port is currently seeking state funding to create an intermodal terminal at the location of the former Oakland Army Base that would allow railways to connect with major rail lines heading out of the Oakland area. This facility would increase rail terminal capacity from approximately 640,000 containers per year to

23. Twenty-foot equivalent unit (TEU) is expressed in number of 20 ft. containers (e.g., 1,000 containers of which 700 are 40 ft. and 300 are 20 ft. = (700+2) + (300+1) = 1,700 TEU.

Exhibit 33

CONTAINER TRAFFIC AND GROWTH IN KEY NORTH AMERICAN CONTAINER PORTS

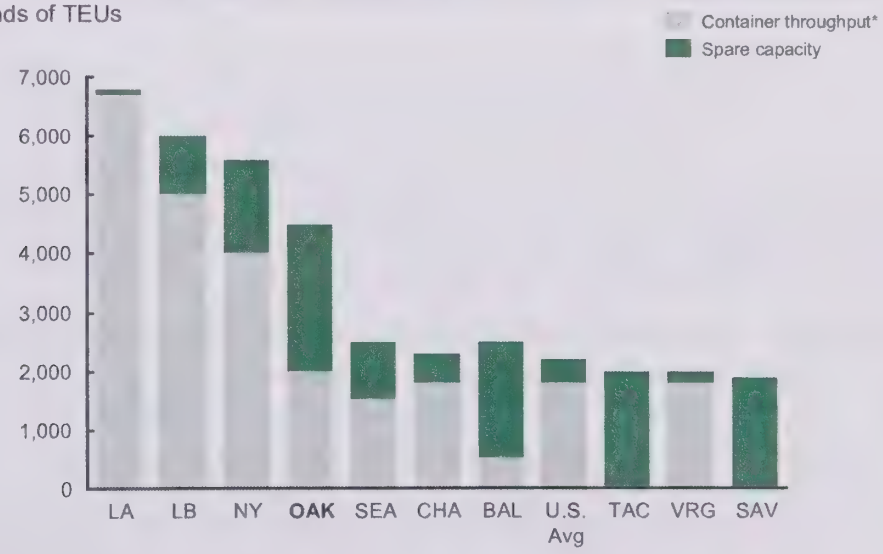
* Twenty-foot equivalent unit (TEU) is expressed in number of 20 ft. containers (e.g., 1,000 containers of which 700 are 40 ft. and 300 are 20 ft. = (700•2) + (300•1) = 1,700 TEU

Source: Containerization International

Exhibit 34

CONTAINER TRAFFIC AND SPARE CAPACITY IN TOP 10 U.S. CONTAINER PORTS, 2003

Thousands of TEUs



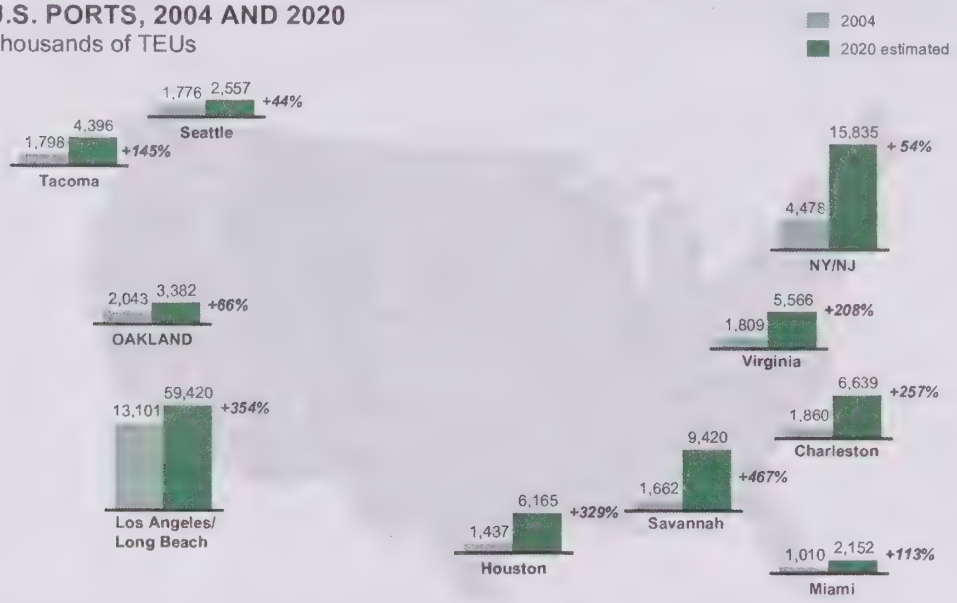
* Includes domestic and empty containers for re-positioning

Source: MGI North America Port Congestion Impact Model; MergeGlobal Inc.

Exhibit 35

MARITIME CONTAINER TRADE VOLUMES OF TOP 10 U.S. PORTS, 2004 AND 2020

Thousands of TEUs



Source: *2005 Report Card for America's Infrastructure*, American Society of Civil Engineers; U.S. Dept. of Transportation

1.7 million containers, at full build-out. However, 1.7 million TEUs represents less than 50 percent of Oakland's estimated 4.0 billion TEUs of traffic in 2020.[23] While development of this rail facility is a good start, it is but a part of a larger program of access improvements needed to keep the Maritime Port of Oakland competitive.

OAKLAND INTERNATIONAL AIRPORT: FROM GOOD TO GREAT

Based on 2005 government statistics of total airline passengers, OAK ranks among the country's 35 largest airports. It accounts for 25 percent of the Bay Area's total airline passenger traffic and employs approximately 16,000 people. Two of the country's leading low-cost carriers serve the Airport, Southwest and Jet Blue. Together, these two airlines carry 72 percent of OAK's domestic passenger traffic (2006 domestic enplanement share), and their presence has resulted in significant traffic growth at OAK since 2001. In fact, it is the only Bay Area airport that has fully recovered its passenger traffic base from pre-September 11 levels.

On some measures, Oakland International Airport compares favorably to peers

On a number of key measures, Oakland International Airport's performance shines compared with the other Bay Area airports (San Jose and San Francisco), as well as with two peer airports that serve markets of similar size, Washington Dulles and Boston Logan. First, grant receipts per passenger in Oakland are the highest of the five airports, as are gate utilization rates.[24] The Airport's air cargo statistics are equally impressive. It ranks among the country's largest air cargo airports and is 27th in the world, with approximately 700,000 metric tons of cargo handled annually. Over the past 3 years, OAK's cargo volume has grown almost four times faster than San Francisco's and will soon surpass that airport in terms of overall cargo volume if current trends continue. [Exhibit 36]

22. Port of Oakland; truckloadrate.com.

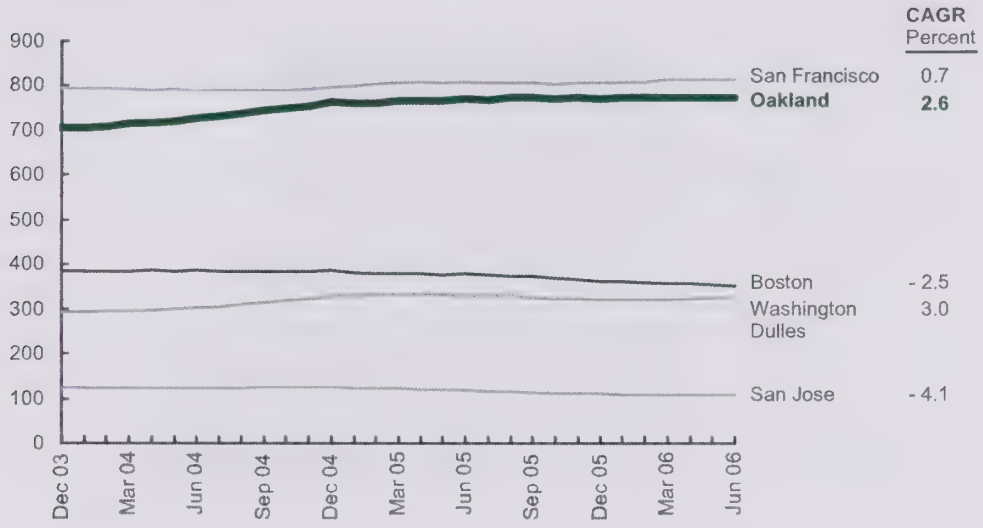
24. Grant receipts from Federal Aviation Administration CATS Report 127; gate utilization rates from Department of Transportation Report T100.

Exhibit 36

GROWTH IN AIR CARGO AT OAKLAND AND PEER AIRPORTS

Rolling 12-month air freight and air mail

Onboard cargo*, tons



* Domestic and international air freight plus mail, all reporting carriers

Source: Department of Transportation, T100

There are five all-cargo carriers currently serving Oakland and the domestic and international passenger airlines that serve the Airport also carry air cargo. About one in every four employees works in a job related to cargo. FedEx has doubled its operations in Oakland by opening a new, 13-acre, 191,000-square-foot complex. The firm operates a regional sorting and international import clearance facility at Oakland, where nearly 2,100 people are employed. Another large presence, UPS, employs 450 people in its airport sort facility and operates a regional distribution center at the nearby Oakland Airport Business Park.

Finally, from a cost standpoint, OAK's costs as a percent of revenues (82.1 percent in fiscal year 2006) are the lowest among the five peer airports, as seen in Exhibit 37.

Airport has room for improvement on some measures

While Oakland is performing very well on several key measures, it lags most of the four other peer airports on others. To begin, OAK's revenue, particularly aeronautical revenue, falls below most of its peers'. At $4.40 per passenger in fiscal year 2006, it exceeds San Jose's $3.00 per passenger, but still falls far below Boston, the leader on this measure, at $8.10. [Exhibit 38]

It also lags behind all but San Jose in total passengers and passenger growth. [Exhibit 39] Its average passenger wait times are middle of the pack. [Exhibit 40]

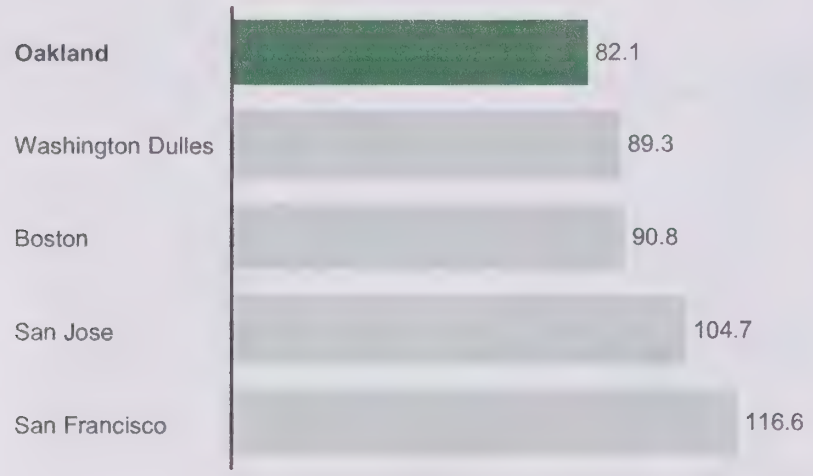
OAK's completion last fall of four gates in its new seven-gate concourse at Terminal 2 will provide a major boost to its passenger capacity. The remaining three gates at the Terminal will open in spring 2007. Already Southwest Airlines, ATA, and Delta have announced new routes and services that will also commence this spring.

In addition, the Airport is in various stages of planning or construction to add gates and build new and expanded cargo facilities. It also plans to expand the Terminal roadway system and

Exhibit 37

TOTAL AIRPORT COSTS AT OAKLAND AND PEER AIRPORTS, 2006

As a percent of total revenue, excluding grants

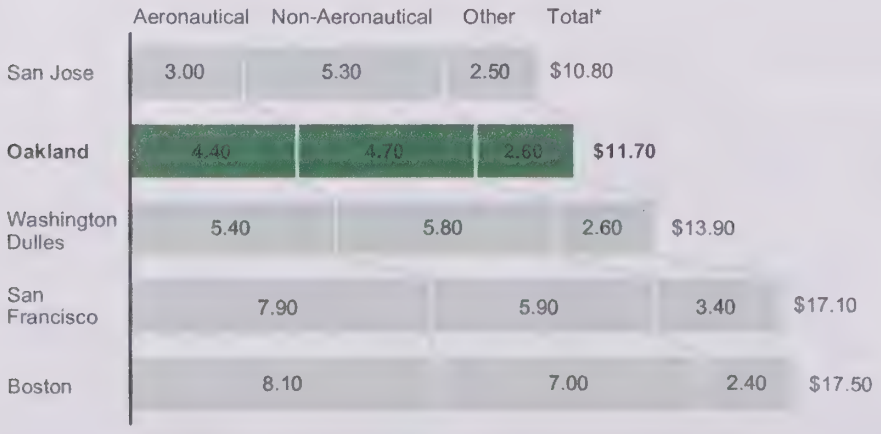


Source: Federal Aviation Administration, CATS Report 127

Exhibit 38

REVENUE PERFORMANCE AT OAKLAND AND PEER AIRPORTS

Dollars revenue per passenger, FY 2006



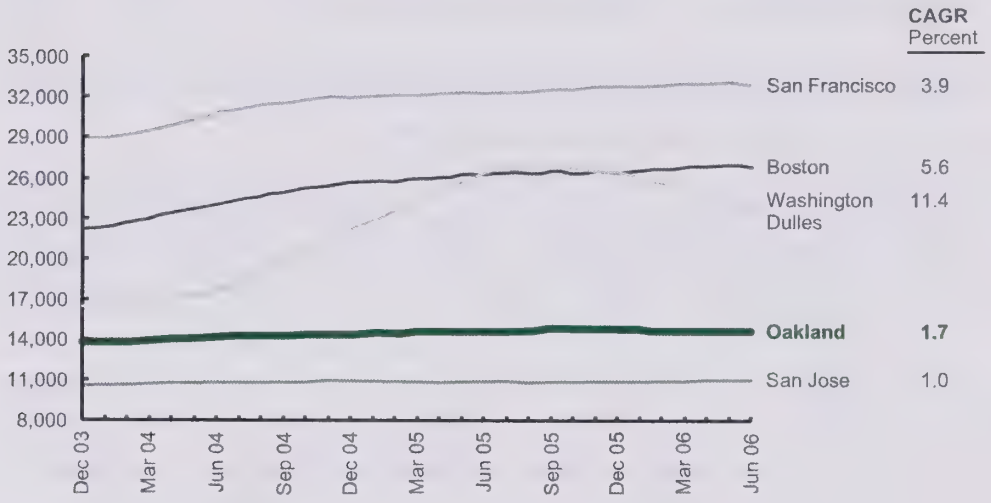
* Revenue from aeronautical (e.g., landing fees, gate rentals) and non-aeronautical sources (e.g., concessions, parking) and other, excluding grants

Source: Federal Aviation Administration, CATS Report 127; Department of Transportation, T100

Exhibit 39

PASSENGER GROWTH AT OAKLAND AND PEER AIRPORTS

Rolling 12-month onboard passengers*, thousands



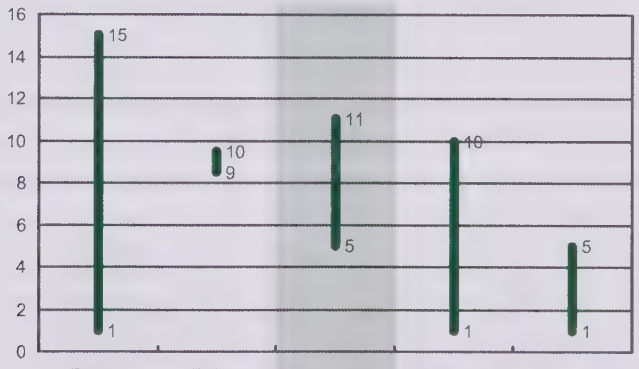
* Domestic and international passengers, all reporting carriers

Source: Department of Transportation, T100

Exhibit 40

SECURITY CHECKPOINT WAIT TIMES AT OAKLAND AND PEER AIRPORTS*

Minutes



	Boston	Dulles	Oakland	San Jose	San Francisco
Maximum wait time (minutes)	50	19	**20**	25	8
Number of checkpoints	11	1	**2**	5	10

* Range of average wait times among all terminals at each airport, at 8 AM on a Monday

Source: TSA (data collected between March 6, 2007 and April 3, 2007)

parking structure, and to enhance its rental car facilities. Linking Terminal facilities to the proposed Bay Area Rapid Transit (BART) connector between the Airport and Coliseum BART station will be instrumental in boosting passenger access.

STEPS TO DEVELOP THE TRADE AND LOGISTICS SECTOR

Four initiatives can increase Oakland's position as an international gateway and logistics hub.

1. Build and invest in infrastructure at the Maritime Port

First and foremost, the Maritime Port of Oakland needs to increase capacity to handle container traffic by upgrading the intermodal infrastructure connecting the Port to the continental US; this will allow for container traffic growth outside of regional traffic (currently serviced via truck). This upgrade offers the added benefit of relieving strain on the region's highways and its air quality.

Specific initiatives will help achieve this:

a. Increase the number of mainline tracks serving the Port to allow for increased intermodal container throughput.

b. Increase tunnel clearances to allow for double stacking of containers on railcars.

c. Increase intermodal rail capacity from Oakland to inland distribution centers.

At the same time as it expands rail capacity, the Maritime Port of Oakland must champion initiatives to remain environmentally sustainable and protect the health of citizens:

a. Strive to develop cleaner air standards along the lines of those being considered by the ports of Los Angeles/Long Beach.

b. Proactively communicate its green initiatives, progress, and successes to the public.

The supply chain management operational practices of trucking and air freight operators should be improved to increase efficiency. (Note: most of the following measures are not under the Port's control. They need to be undertaken by users and customers of the Port.)

a. Invest in advanced technologies[25] for competitive advantage:

- GPS-based RFID – Enabling radio frequency identification device tags to better track and monitor trucks and container movements.
- Route and load optimization software – Transport management systems have long been used to increase the efficiency of retailers' and carriers' supply chains. However, companies now realize these systems can also cut fuel costs and carbon emissions.
- Aviation navigation technology – Automatic dependent surveillance broadcast technology helps pilots form a continuous descent profile in which they are flying in idle mode, thereby cutting carbon emissions.
- Intermodal route optimization – Since some modes of transport are more environmentally friendly than others, researchers are developing a system to allow shippers to use a variety of modes of transport, to choose routes not only in terms of speed and expenditure but also in terms of lower cost to the environment.

25. *Financial Times*, 13 March 2007. "The Green Way to Keep on Trucking" by Sarah Muray.

- Freight matching on the Internet – Like on-line dating, Web technology matches freight forwarders with empty trucks to shippers looking for a cargo space, dramatically reducing the number of wasted return or "backhaul" journeys.

b. Identify and implement processes for working with diverse workforces (i.e., different languages, cultures, etc.) at the Port.

2. Focus on enhancing passenger revenues and cargo volumes at Oakland International Airport

The Airport, while well on its way to growth in terms of its $1.6 billion Airport Development Program, should stay focused on enhancing its per-passenger revenues as well as its cargo capacity. In the Bay Area, the value of air exports far exceeds that of maritime exports. Given the region's continued strength in technology, air exports are expected to continue to grow in value and volume. Positioning itself to capture a significant share of the growth in both passenger and cargo volume will keep the Airport on its growth trajectory.

Given its excellent on-time performance (80.1 percent of scheduled flights arrive and depart on time from Oakland versus 73.5 percent at San Francisco, 73.1 percent at Boston Logan, and 72.0 percent at Washington Dulles) and cost control performance, it appears OAK is successfully improving its quality of service while reducing costs. If it can continue to do so while increasing its capacity, the Airport's potential for significant revenue gains is also excellent. Remaining focused on those structural factors and supply conditions, as the Airport has to date, will be the key to its success in the future.

3. Attract, retain, and grow an international presence

The Maritime Port and the City of Oakland should retain and grow trade and logistics partnerships. By doing so, they can promote greater international trade flows.

Oakland should reconsider opening a permanent facility like the Taipei World Trade Center, which will promote interaction, trade, and commerce with international buyers and sellers [Exhibit 41]. This complements a recommendation made by the Maritime Port of Oakland Task Force, to reconceive the Port as a center for world trade, housing a world trade center building and related structures. Since there is no space for such a facility at the Port, the City may need to consider providing a suitable location. The advantages of such a facility include increased traffic, new jobs, an enhanced quality of urban life, a reduced number of foreign middlemen, and the promotion of a thriving business climate.

Specific initiatives:

a. Explore the feasibility of a showcase facility to attract international and national traders.

b. Open offices internationally, such as the Port already has in China:

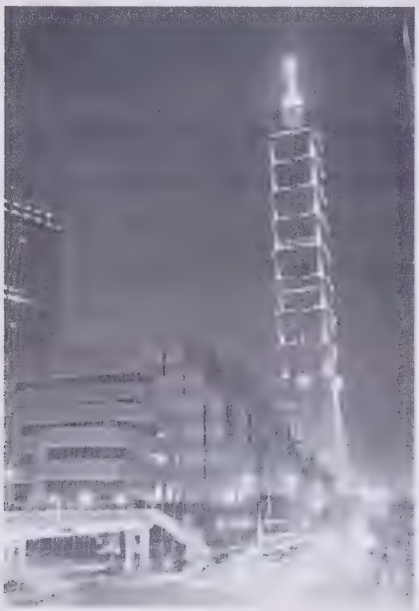
- Open additional offices in other parts of Asia to promote presence, continuous investment, and relationships with Asian trade companies.
- Promote cooperation with reps of Oakland in Asia and Asian trading companies.

c. Retain and grow the Bay Area World Trade Center in Oakland.

d. Increase the number of delegations to sister city, Dailan, and other cities in Asia to strengthen relations.

Exhibit 41

CASE EXAMPLE: TAIPEI WORLD TRADE CENTER (TWTC)



Profile

- Founded in 1986
- Built by government, operated by Taiwan External Trade Development Council (TAITRA, a semi-government agency)
- Capacity: ~2,300 booths in 3 exhibit halls
- Visitors per year: 2 million
- Approx. 90 trade shows per year (approx. 20 international) including
  - Computex Taipei, largest IT show in Asia and 2nd in the world that attracts approx. 1,300 exhibitors and approx. 30,000 foreign buyers per year
  - Taipei International Cycle Show (largest in Asia)
  - Taipei International Machine Tool Show
- Attracts more than 60,000 foreign buyers per year and creates US $5 billion potential export opportunity

Impact on lifestyle

- Integrated successfully with surrounding area and forms the heart of Taipei City, with a mix of commercial and consumer use
  - Trade show and convention centers
  - Commercial and financial buildings
  - Government agencies
  - Hotels, shopping, and cinemas

Source: TWTC website; UDN Press database; literature search

4. Leverage spillover from Port of Oakland to strengthen Oakland's image as an international gateway

Oakland should encourage a vision of itself as an international gateway, offering unique events and destinations. Specific initiatives to support this objective:

a. Tap into existing diversity to strengthen Oakland's international breadth, e.g.,
   - Partner on projects with ethnic districts (e.g., Chinatown)
   - Highlight international organizations (e.g., the Chinatown Chamber of Commerce)

b. Foster international businesses (e.g., import shops)

c. Promote expo of international goods (e.g., world food expo)

d. Market to international businesses

e. Promote a school curriculum that supports the vision of an international destination and gateway
   - Grow logistics and internationally focused education
   - Promote closer cooperation between employers and education students (internships; curriculum)
   - Create a professional certificate program that prepares students for jobs in the trade and logistics industry
   - Elevate the priority of Chinese language instruction and Far Eastern studies at all school levels.

CHAPTER FIVE
RETAIL SECTOR STRATEGY

Creating a safe retail corridor in downtown Oakland would confer many benefits on the City. In the short term, retail would drive tax receipts and create jobs that could be stepping stones to other employment. Over the medium term, retail improves quality of life. This would in turn help draw businesses, such as biotechnology companies, that provide higher quality jobs for residents. In the long term, retail provides a path for economic rejuvenation, which will gradually decrease unemployment, and with it, crime. A vibrant downtown would also convey the message that Oakland is a good place to invest and to do business, and would enhance the City's ability to attract other companies in its key opportunity sectors.

Retail trade is an underconcentrated sector in Oakland's economy. Representing a 7 percent share of Oakland's employment, the sector is significantly smaller than the US average of over 11 percent and the Bay Area's 13 percent. The Oakland City Council has also recognized the significant opportunity to develop retail and recently commissioned an extensive study of the sector. In that context, the present report makes an introductory contribution.

HISTORICAL CONTEXT

Oakland's history with the retail industry is, in many ways, emblematic of its general struggle to recreate and sustain a vibrant economy following the City's economic downturn in the 1970s. Retail is fickle, rising and falling in accord with changes in economic indicators and demographic trends; today, conditions are right for selective development of retail downtown.

A quickly changing industry

Retail is a fickle industry that is the first to leave at the sign of decline and the last to reenter once recovery is underway. Retail requires a host of elements to succeed, including both real and perceived public safety, parking, visibility, and proximity to other amenities. Downtown retail, in particular, has suffered from the advent of the suburban shopping mall in the 1980s, in which retailers seek to control all of these elements as well as the tenant mix. In downtown areas in which property ownership is dispersed, controlling tenant mix is nearly impossible and no retail tenant wants to be alone.

For years the City has sought to recreate the downtown shopping experience it enjoyed in the day of Capwell's Emporium and Hastings Department Store. City Center in Oakland was originally conceived of and nearly implemented as a major retail development. Lacking a major department store anchor, however, it shifted its focus to office space. Other efforts in the Uptown area have failed for a variety of reasons, including a subsidy price tag that was too steep for a struggling City and an increasing degree of blight surrounding the area proposed for a shopping center. In recent years, Mayor Jerry Brown made the decision to put housing in the Uptown area that the Redevelopment Agency had been reserving for retail.

New opportunities

Today, Oakland's downtown economy and its potential to support significant additional retail present a new opportunity for retail development. Mayor Brown's initiative to add residents to the downtown is beginning to bear fruit: more than 10,000 new residents will be living downtown over the next 2 to 5 years, resulting in a more dynamic, 24-hour experience that no longer relies only on daytime office workers. The office market is heating up again and three new office towers are either in construction or will be by the end of 2008, adding nearly a million square feet of additional office space.

As retailers mature and realize the market potential represented by urban residents – as well as the desire of many shoppers to combine their shopping experience with entertainment, culture, and a visit to a unique venue rather than a generic shopping mall – they are rediscovering downtowns. Downtowns with waterfronts like Oakland's are even more enticing. Public transit (BART and AC Transit in Oakland) as well as parking add to the appeal. In short, Oakland still has a tremendous opportunity to attract additional retail to its downtown core, particularly along the Broadway spine, which is host to two BART stops and terminates at the water's edge and Jack London Square.

This opportunity may not be a major shopping center. It is more likely to be the development of a number of different shopping nodes along the spine that are more effectively linked for pedestrians and sprinkled with eateries and entertainment venues like the Fox and the Paramount Theaters. A number of these nodes are easily identifiable: 5th and Broadway and 22nd and Broadway are two. Other sites still face the issue of distinct and separate ownership, but this challenge can be overcome if a comprehensive vision for Broadway can be articulated and once key nodes begin to develop.

SEVERAL STRENGTHS POSITION OAKLAND FOR RETAIL

Oakland has several strengths that position it to attract retail. Its central location allows an opportunity to capture tens of thousands of commuters daily. [Exhibit 42] Adding to this the high purchasing power of Oakland's residents and the recently built housing units for 10,000 new residents, there is strong demand for retail development.

New residents living downtown will create more density, which in turn will increase demand for retail services and improved infrastructure, including lighting and public services. A subsequent outcome will be a reduction in crime, starting a virtuous cycle that should promote an ever-more friendly business climate, helping not only retail to flourish but other downtown businesses as well. Indeed, the number of Oakland's families has seen rapid growth since 2002, increasing by 9 percent over the 3-year period of 2002 to 2005. [Exhibit 43]

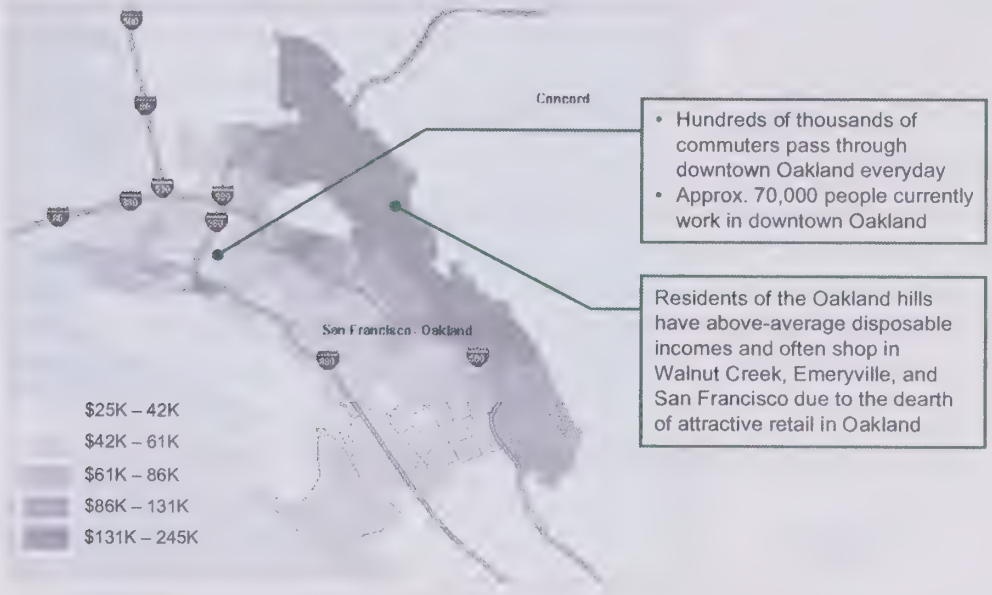
Another strength lies in the relatively high purchasing power enjoyed by Oakland's residents on average. They already outspend half of our benchmarking cities. [Exhibit 43] And this purchasing power is growing. Since 2000, disposable income in the Oakland-Fremont-Hayward urban cluster has grown by 8 percent (compounded 2000 to 2005), a favorable rate considering how the dot-com bust affected the Bay Area as a whole. By comparison, San Francisco and the West Bay grew by 4 percent over the same period.[26]

26. US Bureau of Economic Analysis; Moody's Economy.com.

Exhibit 42

AVERAGE HOUSEHOLD INCOME IN OAKLAND, 2006

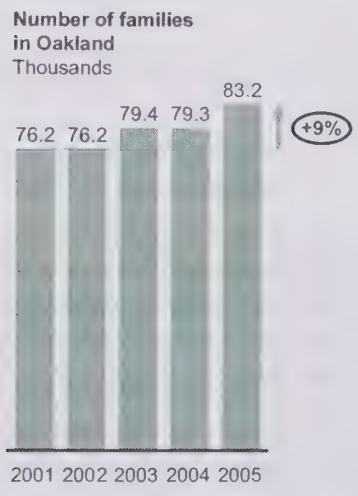
By census tract

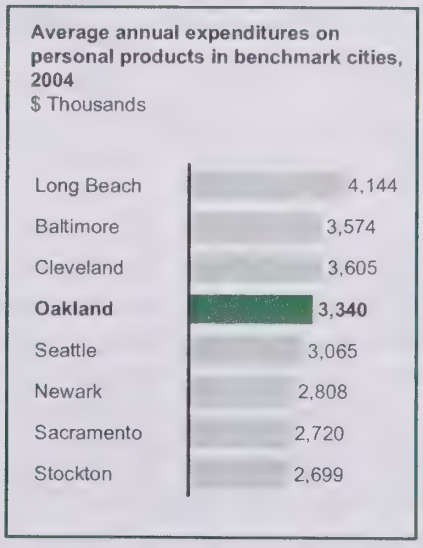


Source: ESRI Business Analyst; The 2005 Urban Mobility Report

Exhibit 43

GROWTH OF FAMILY HOUSEHOLDS IN OAKLAND AND ANNUAL PERSONAL EXPENDITURES IN OAKLAND AND BENCHMARK CITIES





Source: University of Wisconsin-Milwaukee Employment and Training Institute, 2004. The analysis is based on 2002 Bureau of Labor Statistics Consumer Expenditure Surveys and 2000 U.S. Census data

DESPITE STRENGTHS, KEY CHALLENGES HAMPER RETAIL GROWTH

While Oakland's opportunity for retail is great and the benefits that a strong retail sector would afford the City are significant, longstanding obstacles to developing downtown continue to be significant challenges, and must receive attention simultaneously with a retail development initiative. The two most significant challenges identified during the course of preparing this report are the real and perceived lack of public safety and, more importantly, political will.

Lack of public safety: real and perceived

While Oakland continues to struggle with a serious crime problem that ranks it as one of the ten most crime-ridden cities in the US, it is clear upon examination of the data that most crime incidents happen in Oakland's neighborhoods and not in the downtown area. Nonetheless, Oakland's crime rate per 100 people is twice that of Seattle and Long Beach, matching Cleveland and Stockton, and is exceeded by only Baltimore. [Exhibit 44]

Exhibit 44
CRIME RATE IN OAKLAND AND BENCHMARK CITIES, 2005

	Population	Number of crimes	Number of crimes per 100 people
Baltimore	641,097	11,248	1.8
Cleveland	458,885	6,416	1.4
Oakland	**400,619**	**5,692**	**1.4**
Sacramento	457,347	5,265	1.2
Stockton	281,747	4,202	1.5
Seattle	579,215	4,109	0.7
Long Beach	497,729	3,399	0.7
Newark	281,063	2,821	1.0
U.S.	**296,410,404**	**1,390,695**	**0.5**

Source: Federal Bureau of Investigations; McKinsey analysis

While Oakland's crime problem is real and must be addressed, research demonstrates that Oakland's challenge in this regard, particularly in developing its downtown, is as much about improving the perception of crime as it is reducing the incidence of crime. This study's survey of local businesses ranked crime as the most serious obstacle to doing business in Oakland, to growing existing businesses, and to attracting new businesses.

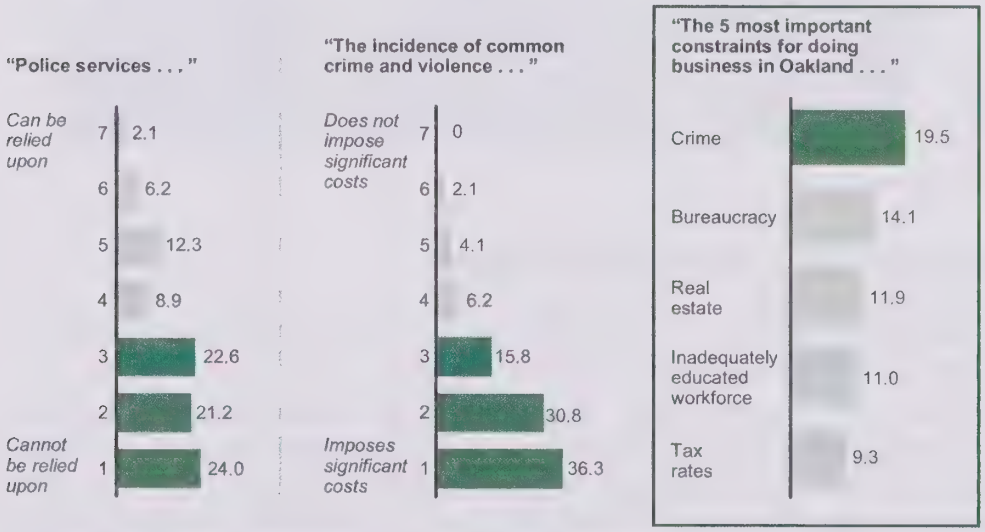
Two questions in particular addressed the issue of crime:

- "Police services cannot/can be relied upon to protect businesses from criminals"
- "The incidence of common crime and violence (e.g., street muggings, offices being broken into) does/does not impose significant costs on businesses."

In aggregate, crime received an overall average rating of 2.91 on a 7-point scale.[27] This means respondents strongly agreed with the first option posed in each question, i.e., that police services cannot be relied upon, and that the incidence of common crime and violence does impose significant costs on businesses. Moreover, they felt that crime more than any other factor poses a barrier to doing business in Oakland.

As well, another survey question bears out the feeling among local businesses that crime is the biggest barrier. This question offered a list of 10 constraints gleaned during the interviews, and asked participants to select the 5 biggest constraints, ranking them from 1 to 5 with the biggest problem first. Crime emerged as the most frequently cited constraint. [Exhibit 45]

Exhibit 45
VIEWS OF OAKLAND BUSINESSES TOWARD CRIME-RELATED ISSUES
Percent survey respondents*
N = 148



* Responses shown may not total 100% as "not applicable" was also an available response
Source: Oakland Metropolitan Chamber of Commerce Survey, 2006

Bureaucracy and lack of political will

During interviews of local business leaders, they repeatedly indicated that lack of political will stifles retail's growth. The interviews indicated a number of concerns with the City's government across many past administrations. Among the most frequent concerns heard regarded the City's passivity and lack of leadership on development initiatives, an apparent unwillingness to support business development, excessive regulation, and bureaucratic sluggishness. [Exhibit 46]

Similarly, local businesses ranked "bureaucracy" as the greatest barrier to development, after crime. In questions attempting to gain more detail on "business climate," respondents ranked starting **a new business** and **expanding a business** as very difficult, because of inefficient government processes and bureaucracy.

27. For more detail on the Survey, see Chapter 7.

Exhibit 46

REPRESENTATIVE QUOTES ON POLITICAL WILL IN OAKLAND

Source: Expert interviews

STRATEGIC INITIATIVES TO STRENGTHEN RETAIL

In order to address its challenges and make the most of its opportunity for attracting additional retail to its downtown, Oakland should take the following steps:

- Identify one or two specific retail nodes along the downtown Broadway corridor in collaboration with prospective retailers and developers. Rally the support of state and regional authorities as well as redevelopment resources to make viable sites available and to improve amenities and access to those sites. In an era of limited resources, it is better to be very successful in one area and realize the tax and job benefits of that success, than to spread resources too thinly for marginal returns. Once downtown retail succeeds, the City will have additional resources to apply to the neighborhoods. In the meantime, existing federal resources and programs can continue to be directed to the neighborhoods.
- Identify more progressive retailers who already have a corporate policy of reentering the urban market, and who may consider lower short-term returns on their investment in exchange for other benefits, such as positive media attention and other incentives. Retailers like Target and Cost Plus World Market already have socially conscious corporate strategies that endorse taking risks in exchange for other benefits, and may be willing to engage with the community as a partner in rehabilitating Oakland's downtown and engaging youth in employment. Cost Plus has already made a considerable investment in its Jack London Square store. Oakland should identify and work directly with such retail prospects and be responsive to their needs. Once the City can demonstrate success with a handful of retailers, others will follow.

- Address key enabling factors. Developing the downtown retail area more than any of our other sector recommendations depends on overcoming the barriers that have prevented retail from gaining ground in the past: fear of crime, lack of foot traffic, and lack of support for business needs. In the case of retail, Oakland must look first to the foundational areas discussed in Chapter 7.

CHAPTER SIX
EMERGING SECTORS

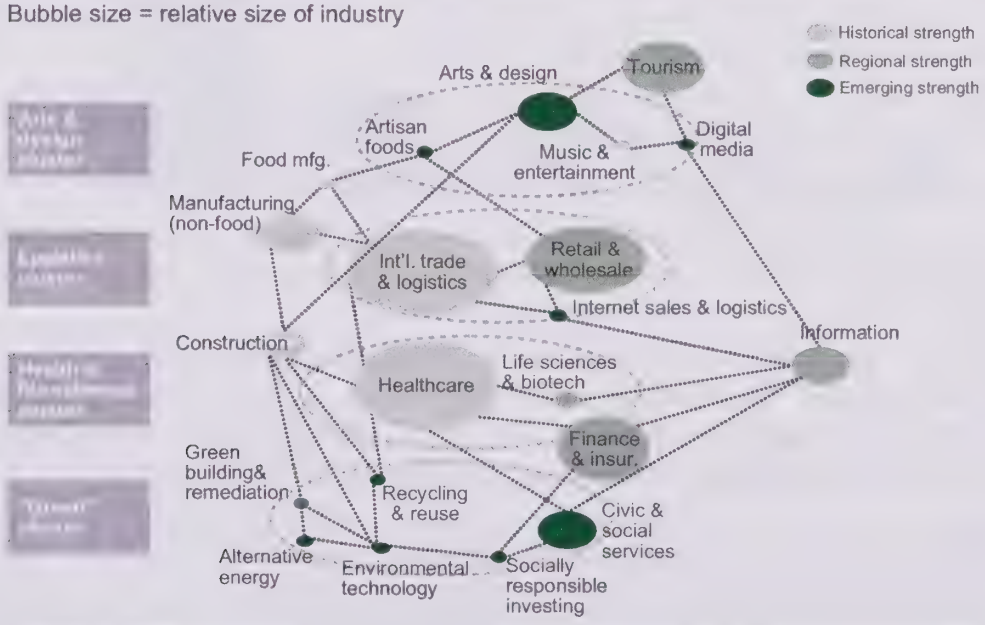
While Oakland's traditional industries, such as healthcare and trade and logistics, are facing challenges in Oakland, a number of other industries, though much smaller in overall employment, are emerging with strong potential for growth. These include **green industry, arts, design, and digital media, and specialty food manufacturing.**

These sectors derive their momentum from activities in which Oakland has long demonstrated success (civic-minded nonprofits, environmental science, the arts, and traditional food manufacturing). Changing demand patterns and a dynamic small-business culture have brought about a number of new applications for these historical strengths as previewed in our Introduction to this report and seen again below in Exhibit 47.

Exhibit 47

CONCEPTUAL FRAMEWORK: INDUSTRIES EMERGING AND CLUSTERING IN OAKLAND FROM HISTORICAL/REGIONAL SECTOR STRENGTHS

Bubble size = relative size of industry



For example, companies like Niman Ranch (an organic meat processing company) and Numi Tea (an environmentally friendly gourmet tea manufacturer) have replaced the slaughterhouses and canneries of yesterday, shifting their market focus to specialty foods in niche categories that capitalize on demand for organic or designer foods. Because their products can command a price premium, they can afford to operate in the high-cost environment of the Bay Area. And largely because their founders appreciate the East Bay and like serving the region's demand for gourmet foods, they choose to be in Oakland.

In the case of the arts, new opportunities in specialty design, animation film production, and other digital media have created venues in which artists are not only valued but from which artists can directly benefit. This trend bolsters organizations like the California College of Arts and Crafts and Ex·pression College, which tailor some of their programs to these industries. The result is a self-reinforcing, virtuous cycle between artistic forms and business enterprise.

This chapter discusses in turn activities in green industry, arts, design, and digital media, and finally, in specialty food manufacturing.

Green Industry

Environmentally and socially conscious activities also have long found a home in the East Bay. UC Berkeley, the birthplace of the free speech movement in 1964, became a natural incubator for the environmental movement in the 1970s. Initially a protest movement fighting against polluter factories, raw sewage, pesticides, and the loss of open space to suburban sprawl, today the culture is transitioning to one of constructive engagement. With increasing awareness of global warming and the need for clean sources of energy that can serve as alternatives to fossil fuels, this culture – which applies the ethics of social and environmental concern to business enterprises that can actually solve the problems identified in the early movement – is becoming more prominent. The East Bay's cultural and personal links to Silicon Valley and the resources there for supporting new ventures speaks to a new wave of opportunity: marrying the scientific expertise at the region's universities with its socially conscious culture and business savvy.

This section, clustering together industries sharing these ethical concerns, encompasses: 1) green technology, 2) socially responsible investing, and 3) steps to grow a green sector.

1. Green Technology

The emergence of "green technology" as an industry is still a relatively new phenomenon; the term can best be understood as encompassing a mixture of technology, ethics, and business development. This report breaks the sector down into three components:

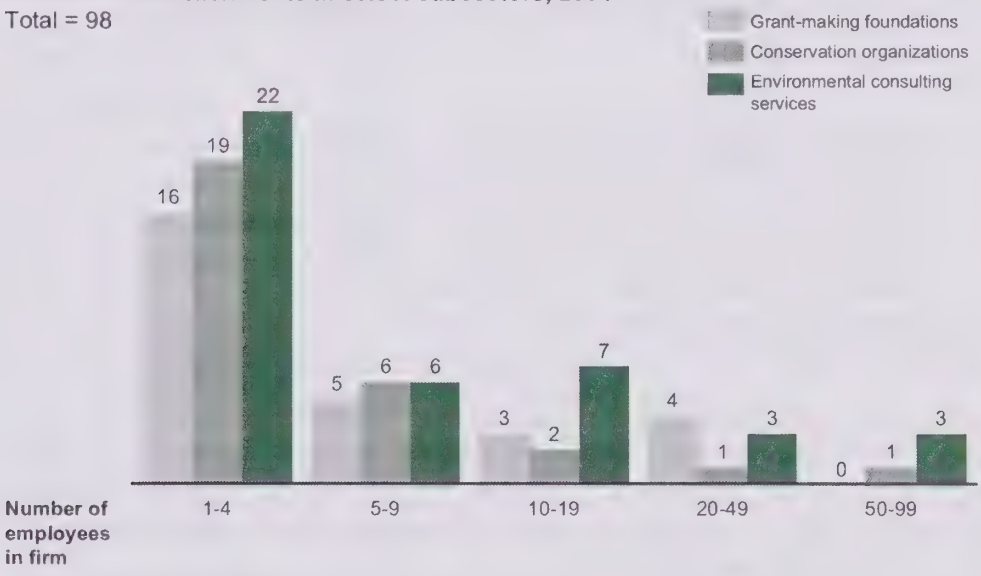
- Companies that are seeking to develop alternative energy sources (Part A below: **Clean technology**)
- Companies that design and produce products and services that help the environment (Part B below: **Green building, environmental engineering and management**)
- Companies (and policies) that are seeking new ways of using existing resources more efficiently (Part C below: **Energy and materials efficiency**).

Most of these firms still defy the traditional industry classification system and so it is difficult to measure their growth using conventionally collected data. However, many can be classified as professional services firms – a category that includes companies that provide environmental consulting, geotechnical services, energy conservation and management, engineering, and other services; the category has enjoyed a brisk growth rate in Oakland over the last 6 years. While the broader professional services sector (i.e., professional, scientific, and technical services) grew at a 2.4 percent (CAGR) from 2001 to 2006[28], two of its subsectors grew at fairly phenomenal rates: employment in **management, scientific, and technical consulting** in Oakland grew 8.4 percent, and employment in **scientific, research, and development services** grew by 7.7 percent.[29] These two

subsectors, together with **engineering and architecture**, constitute more than half of all employment in Oakland's professional services sector; the growth in these subsectors has been fueled by burgeoning green industries.

In purely environmental and social service activities in 2004, Oakland could boast 98 organizations, a number which, when adjusted by population size, made it the top city when compared against its peers, on a green industry index. [Exhibits 48, 49]

Exhibit 48
GREEN AND SOCIAL COMPANIES HEADQUARTERED IN OAKLAND
Number of establishments in select subsectors, 2004
Total = 98



Source: U.S. Census Bureau; Hoovers

Increasing public awareness of global warming trends, along with continued political turmoil in the Middle East and the rising price of oil, have heightened demand for alternative energy technologies, as well as products and services from companies that incorporate sustainable practices and materials.

One of the best indicators of this increasing demand is the degree to which investors are now incorporating green and sustainability criteria into their investment decisions. As a recent BusinessWeek article put it, citing the Social Investment Forum (a trade organization for nonprofits), "Serious money is lining up behind the sustainability agenda. Assets of mutual funds that are designed to invest in companies meeting social responsibility criteria have swelled from $12 billion in 1995 to $178 billion in 2005."[30]

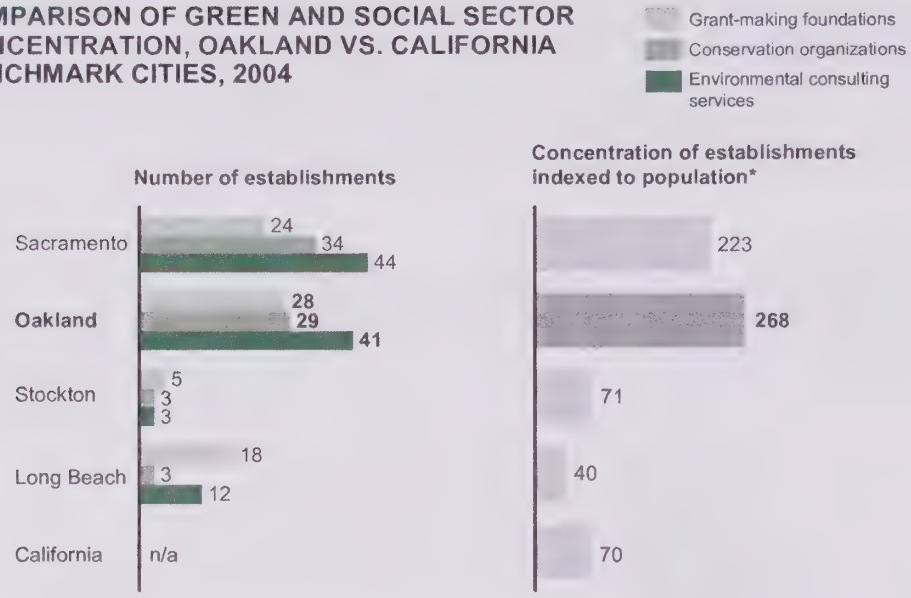
a. Clean technology: an exciting new sector Oakland should proactively encourage

As stated above, this report breaks the green technology sector into three subsectors. The first, **clean technology**, comprises a range of products, services, and processes that harness renewable materials and energy sources, dramatically reduce the use of natural

28. All growth rates expressed as compound annual rates over the period 2001-2006, unless stated otherwise.

Exhibit 49

COMPARISON OF GREEN AND SOCIAL SECTOR CONCENTRATION, OAKLAND VS. CALIFORNIA BENCHMARK CITIES, 2004



* Formula for index = (# of "green" establishments * 1 million) / population
Source: County Business Patterns, 2004

resources, and cut or eliminate pollution and toxic waste. Clean technology encompasses advancements in solar power, wind power, hybrid vehicles, fuel cell technology, tidal and wave power, biodiesel, green building materials, and water treatment systems. The dynamic and growing nature of the industry is illustrated in the interest of even multinational energy companies such as BP and Chevron.

Oakland should take an active role in encouraging the emerging clean technology industry. This sector is attracting intense investment activity, it creates jobs, and it aligns with Oakland's green values, offering a double opportunity to provide work in the green sector and to further evolve the economy toward green values and products. The timing is right as well: like biotechnology a decade ago, clean tech startups are looking for affordable locations, and they want to be in the Bay Area where the growing clean technology community is clustered. Oakland is an ideal location.

Investments in clean tech are growing rapidly

Venture capital: the Bay Area now hosts at least three dozen clean tech companies and has become the clean tech epicenter of the US. Many Silicon Valley VC firms have raised new funds focused exclusively on clean tech. Clean tech is the 6th largest VC investment category in North America, and is venture capital's fastest growing segment. The total VC investment in clean tech in 2006 reached an all-time high of $2.9 billion, double the 2004 amount. California earned $1.06 billion of that $2.9 billion (37 percent), and the Bay Area captured $638 million, which is 60 percent of the California total.[31] This represents investments in more than two dozen local companies, up from 13 in 2005.

29. California Employment Development Department (4-digit NAICS).

30. January 29, 2007; cover story.

Other investment sources: large institutional investors like CalPERS, Goldman Sachs, and Jeffries and Co. have also focused investments in this area. Successful angel investors such as Larry Page and Sergey Brin (Google co-founders), Vinod Khosla (Sun Microsystems co-founder), and Elon Musk (PayPal founder) have also made investments in clean tech, further affirming the huge opportunity.

BP, one of the world's largest energy companies, recently awarded a 10-year, $500 million grant to UC Berkeley, Lawrence Berkeley National Laboratory, and the University of Illinois to house the Energy Biosciences Institute. The institute will develop new sources of energy and reduce the impact of energy consumption on the environment. Along the same lines, BP Alternative Energy, a wholly owned subsidiary of BP, recently bought Orion Energy LLC, one of the leading independent developers of wind energy projects in the US and an Oakland-based company.

Clean tech creates jobs

According to a 2004 report by Environmental Entrepreneurs and the Natural Resources Defense Council, existing venture capital investments in California's clean technology industry could seed 52,000 to 114,000 new jobs statewide. As an example, Nanosolar, based in Palo Alto, just opened a 247,000-square-foot manufacturing facility in San Jose on a former Cisco Systems manufacturing site. The facility will make thin film solar cells and employ between 200 and 300 people. Nanosolar chose that site because they did not want to build from scratch and because San Jose specifically offered to handle the permit applications quickly, beating out Oakland, San Francisco, and other cities.[32]

Given the strong pull from Silicon Valley, Oakland will need to take clear, concerted steps to assert leadership in this space.

b. Green building, environmental engineering and management

We call the second subsector within the green technology sector **green building, environmental engineering and management.** While well positioned to grow this industry given its pool of professional, scientific and engineering talent and its historic strength in construction, architectural services, and design, Oakland can do more to grow this emerging sector.

Oakland's historic strength as a center for the construction industry stemming from the Kaiser era (see Exhibit 47 above) could be partially reconstituted in this subsector. In fact, it has already begun. Many of Oakland's architects, designers, and contractors have developed green building practices and trained or attracted certified green building professionals to their staff. Close by, a number of innovative organizations seeking to further sustainable construction and business practices such as Architects/ Designers/Planners for Social Responsibility (Northern California Chapter), Build It Green, and the Sustainable Business Alliance are all located in Berkeley.

While Oakland also has developed a critical mass of environmental and geotechnical engineering and consulting firms, such as URS Corporation, Kleinfelder Inc., and CH2M Hill, it has grown few of these companies itself. These companies have chosen to locate an office in Oakland, but they are headquartered elsewhere. Geomatrix Consultants,

31. *San Francisco Business Times.* "Cash pours into clean tech" Feb 16, 2007 by Lizette Wilson.

an environmental consulting firm with over 300 employees and more than $66 million annual revenue as of 2004, relocated from San Francisco in the late 1990s and is currently headquartered in Oakland.

c. Energy and materials efficiency

Finally, our third green technology subsector is **energy and materials efficiency.** Oakland has a particularly high concentration of recycling firms in large part due to its proximity to the Maritime Port of Oakland. Scrap metal and other materials now command high prices in China and other emerging economies. As a result, firms that collect, process, and ship scrap materials to Asia have been increasingly profitable in recent years. Major export-oriented recycling firms include Snitzer Steel, Super Link Plastic Inc., and Sutta Company.

Beyond being the main export portal for scrap metal, paper, and plastic collected in Northern California, Oakland also anchors the Oakland/Berkeley Recycling Market Development Zone (RMDZ), which offers low interest loans and other incentives to recycling-based businesses that provide local, value-added utilization of recycled materials. Oakland is home to many such firms, including Owens-Illinois, American Brass and Iron, Easy Bay Rock and Joinery Structures, Norcal Waste Services, and Aaron Metals. Including export and/or local value-added firms, recycling-based firms number at least 35 in Oakland, collectively employing over 1,000 people.

Public policy drives demand, fosters green culture

Much of the push in developing products and practices that employ existing resources more efficiently will likely come from new legislation. Recent California legislation, reflecting growing popular concern about the environment, will increase demand for environmentally friendly products and fuels:

- AB 32 – Recognizes global warming and requires California to cut greenhouse gas emissions by 25 percent by 2020.
- AB 1368 – Prohibits utility companies in California from buying electricity from high polluting power plants.
- AB 1881 – Sets new performance standards for smart irrigation of landscapes. Requires all California cities and counties to comply by 2010. By 2012, all irrigation controllers sold or installed in the state must meet the new, tougher standards.

California Assemblyman Lloyd Levine has proposed to ban incandescent light bulb sales in California by 2012.

Local policy also plays a role in creating both a climate and a culture focused on green values. Oakland's City Council recently adopted a plan to achieve 50 percent renewable energy by 2017. In related legislation, Oakland's Green Building Ordinance (2005) encourages multifamily housing to achieve Leadership in Energy and Environmental Design (LEED) ratings. These and other efforts help Oakland consistently rank among the top 10 greenest cities in the US The National Geographic's Green Guide in 2006 ranked Oakland sixth and its next door neighbor, Berkeley, seventh. Another environmental public policy group called SustainLane, based in San Francisco, ranked Oakland in the top 10 for 2 consecutive years (sixth in 2006).

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32. David Baker, "San Jose will have innovative solar plant: 'thin film' cells don't use silicon," *San Francisco Chronicle*, December 13, 2006.

2. Socially Responsible Investing

Like its potential in green technology, Oakland's early potential to play an important role in the emerging niche of socially responsible investing has not yet been realized. Oakland is home to Progressive Asset Management Inc., the first independent, full-service investment brokerage in the US to specialize in socially responsible investing; the company has launched the Progressive Asset Network with over 400 representatives. Oakland is also home to the Camejo Group, the lead firm in a network of financial professionals offering socially responsible investments, and home to Natural Strategies, a strategy and management consulting firm with an emphasis on sustainability.

But, competitor regions, in particular the financial services centers of New York, London, and San Francisco, have been quick to meet the increasing demand for investor information on sustainability. Goldman Sachs, Deutsche Bank Securities, UBS, Citigroup, Morgan Stanley, and other brokerages now assess how companies are affected by a number of factors including climate change, social pressures in emerging markets, and governance records. Innovest, a company founded in 1995, tracks 120 different factors such as energy use, health and safety records, litigation, employee practices, regulatory history, and management systems for dealing with supplier problems. It uses these measures to assign grades ranging from AAA to CCC, much like a bond rating, to 2,200 listed companies.

How can Oakland carve out and develop a niche for itself among these financial giants? Now that sustainability and social responsibility are catching on, Oakland must highlight and strengthen its leadership in the Bay Area with the cluster of financial services companies that make "double bottom-line" investments in the smaller, newer, private companies. Perhaps Oakland's niche will be evaluating and tracking the performance of firms and funds that focus on inner city and domestic emerging markets. According to one local business leader, "There is even room for Oakland to provide some leadership with the publicly traded companies in relation to the inner-city/domestic emerging markets side of things."

3. Steps to Develop the Green Sector

Oakland can make the most of its top green ranking to capture more green business and even to play a prominent role in this emerging sector. It should take active steps to do this now, learning from its slow start in biotechnology.

Our survey of local businesses indicates that such development would enjoy support in the business community and that a majority of firms consider the environmental friendliness of their own business strategy to be extremely important. [Exhibit 50]

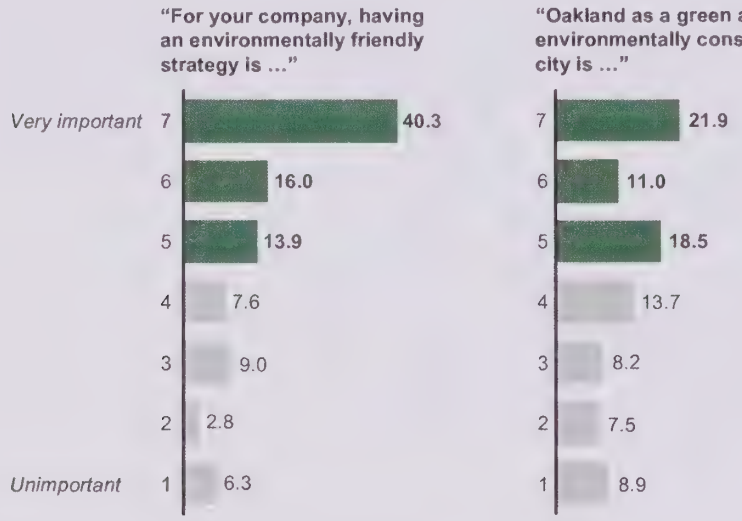
There are a number of strategies Oakland can consider as it prepares a proactive business development strategy in green technology. Most of these derive from best practices from other regions as well as a number from Oakland's local experts. A few lessons learned from these best practices include:

a. **Take stock of existing assets and leverage them fully.** The Bay Area has already captured an early lead in the clean technology industry, capturing 22 percent of the $3 billion of venture capital invested in the industry in 2006. So far, none of that has come to Oakland. To capture some of it, Oakland must understand the dynamics of the industry regionally and then step up to play a leading role going forward. Like biotechnology, green technology will be a regional strength, and the question is whether Oakland will be included in its success or not.

Exhibit 50

VIEWS OF OAKLAND BUSINESSES TOWARD ENVIRONMENTAL ISSUES

Percent survey respondents*
N = 148



* Responses shown may not total 100% as "not applicable" was also an available response
Source: Oakland Metropolitan Chamber of Commerce Survey, 2006

b. **Create a nourishing business climate** that provides emerging companies with all the various elements necessary for their growth: technology, qualified people, financial resources, and a positive, enabling environment that embraces not only the culture of environmental sustainability and social equity, but innovation and the rewards to innovation as well. Oakland's proximity to UC Berkeley is important, but only if venture capitalists are persuaded that funding a start-up in Oakland is a good investment.

c. **Government can play a supporting role** in a growth strategy but it cannot grow companies or jobs itself.

- Government can encourage an industry by passing laws that reflect the values of the community and that set targets in terms of emission reduction or fuel self-sufficiency; but it cannot regulate business formation.
- Government can help market and brand the City as a good location for certain activities and it can work proactively with companies on real estate entitlement or related issues, but it should not be in the business of financing companies or picking winners or losers.
- Government can work with business groups to support incubators or hold networking events or conferences that provide forums for members of the industry to connect and forge working relationships, but, in an age of limited municipal budgets, it should not fund or undertake these activities directly.
- Rather, government should seek to be a strategic partner with chambers of commerce, industry associations, existing incubators, training organizations, and others to achieve a shared vision.

Best practices from other cities

San Francisco has devised a strategy to develop a clean tech industry cluster from which Oakland can learn:

- Mayor Newsom created the Clean Tech Advisory Council (CTAC), a group of industry heavyweights who will help position San Francisco as a global leader in the development, creation, and use of clean technology, focusing on attracting clean technology businesses to San Francisco and creating jobs in this emerging sector.
- As a piece of the Clean Tech strategy, Mayor Newsom appointed Dina Mackin as Clean Tech manager in the Mayor's Office of Economic and Workforce development to develop the city's clean tech cluster and help recruit companies to locate in San Francisco. The cluster, which may include a campus like those for biotechnology and digital entertainment, will offer a home to start-ups as well as established companies.
- Mayor Newsom issued an executive directive last year to increase the use of biodiesel fuels in City vehicles. The City is offering payroll tax exemptions for clean tech companies and is installing a greenhouse gas emission cap.

San Jose has a number of existing strengths to leverage in terms of its proximity to Silicon Valley. It has also launched an Environmental Business Cluster focused on early-stage development of alternative fuels and hybrid commercial vehicles. It is a collaboration of the City of San Jose, the Electronic Transportation Collaboration Center, San Jose State University, the National Renewable Energy Laboratory, and Pacific Gas & Electric.

The University of Texas at Austin formed a Clean Energy Incubator in 2001 within its existing Technology Incubator. Its activity is supported by the Texas Energy Conservation Office and the National Renewable Energy Laboratories' National Alliance of Clean Energy Incubators. It is a plus that it has been launched within the structure of an existing, well-performing, more general technology incubator with a track record of matching research from the University with funding and business expertise.

The Massachusetts Institute of Technology has also launched a clean tech incubator as part of the National Alliance of Clean Energy Incubators and holds an Ignite Clean Energy competition.

Oakland's Green Economic Task Force recommendations

In Oakland, Mayor Ron Dellums' Green Economy Task Force has made a number of excellent recommendations:

- Establish a Green Enterprise Zone (GEZ) for mixed commercial, clean-industrial, and live-work use, featuring world-class facilities that will constitute a green tech park.
- Recruit prominent anchor tenants by offering preferential terms to existing and planned infrastructure and facilities in the GEZ.
- Establish a Green Economic Development Plan, which would have as its main objective making Oakland a center for green business and sustainable urban life. Initiatives might include, e.g.:
  - Encourage green participation in the planning process, and attract and support green businesses, banking services, and markets for green investments

RECENT "GREEN" ACTIONS UNDERTAKEN BY THE CITY OF OAKLAND

Waste Reduction Actions

- Green Food Service Ware Ordinance (Ordinance No. 12747 C.M.S) , which went into effect on January 1, 2007, prohibits the use of polystyrene foam disposal food service ware in restaurants in the City and requires, when cost neutral, the use of biodegradable or compostable, disposable food service ware by food vendors and City facilities.
- Part of the city's zero waste goal of 2020 includes the aim to reduce the landfill contribution by 90 percent, from 400,000 tons a year to 40,000 by 2020.

Air Quality Actions

- Adopted a zero waste by 2020 goal, which includes becoming oil-independent by increasing renewable electricity generation, using alternative fuels in City vehicles, and funding an ever-growing bicycle network.
- In 2005, Oakland became the second city in the country (after Chicago) to formally adopt the Chicago Climate Exchange, a voluntary but legally binding program, aimed at reducing greenhouse gases by 15 percent before 2010.
- Passed a green-fleet resolution in 2006, which directs the City to replace aging vehicles with alternative-fuel ones. Now 15 percent of the City's fleet runs on alternative fuel. The City also installed a compressed-natural gas (CNG) fueling station at the airport for City vehicles.
- The Maritime Port of Oakland recently approved a taxicab ordinance requiring half of all taxicabs serving the Airport to operate on alternative fuels. It also repowered, retrofitted or alternatively fueled more than 260 pieces of diesel equipment, earmarking $2 million for truckers to replace older vehicles with newer, cleaner-burning trucks. The Port is also participating with the City on promoting truck routes that keep big rigs out of nearby residential neighborhoods, thus reducing the amount of diesel particulates in the air. The Port is also moving its own fleet of vehicles over to CNG and liquefied natural gas (LNG).

Construction and Design Actions

- In May 2005, the City adopted a Civic Green Building Ordinance, which mandated that all new and heavily renovated City buildings meet a set of guidelines established by the US Green Building Council called Leadership in Energy and Environmental Design (LEED). Oakland adopted the silver standard for all municipal buildings, which outlines onsite recycling programs and diversions for waste generated from demolition. The City already has a number of projects that fall under this new standard.
- The City offers expedited permit review and approvals in cases where green projects are less than 50 units or 50,000 square feet of commercial space (when certain conditions are met). Projects that are over 50 units or 50,000 square feet already receive Major Project Status and expedited review.
- Numerous other incentives and resources exist in Oakland and at the county and state levels for developers and homeowners to integrate green products and services in their building and development projects.

Energy-Related Actions

- Oakland has set a goal for itself to have at least 50 percent of its energy be in the form of green energy generation by 2017, which is even more aggressive than what the state required from PG&E by the same date (to have 20 percent of its portfolio in renewable energy sources such as wind or solar).
- The City has swapped out the existing incandescent signal lights in each of its 36,219 streetlights with LEDs. This reaped an estimated savings of $421,000 per year in electricity costs (source: Oakland Public Works Agency).

The City has also made a bold effort at reducing its carbon output by promoting clean-energy generation. Together with Emeryville and Berkeley, it is forming a partnership to buy cleaner energy than PG&E can provide. The program, called Community Choice Aggregation, is an implementation of a 2002 bill by former State Assemblywoman Carole Migden that allows power producers to sell to surrounding communities.

Source (except where noted otherwise) is the *2006 Annual Report on Sustainability: Oakland's Progress Report*, edited by Carol Misseldine, Sustainability Director.

- Stimulate and support the job training pathways needed for Oakland residents to be competitive in securing employment in green sectors
- Empower the Workforce Investment Board to work with green investors to develop incentives and or regulations for them to employ Oakland residents.

- Promote Green Workforce Development, as recommended by the Oakland Green Economy Task Force. Initiatives might include, e.g.:
  - Integrate green thinking with ongoing workforce development efforts; promote collaborative discussions with all education and workforce training stakeholders toward creating a green workforce and green job and business markets
  - Convene a Green Business Forum, create a multi-agency and community Green Workforce Development Education and Training Plan, and a Green Jobs Corps
  - Establish an Oakland "First Source" hiring policy for City contractors to increase employment and reduce commuting.

Create an Office of Sustainable Development including membership from every stakeholder in the virtual green cluster: energy companies, green architects, builders, suppliers, etc.

Among the above, we would elaborate on the value of a Green Business Forum, which would serve to increase the exchange of ideas and speed real action. Since many of the pieces required to develop the green sector already exist, enhancing communication among the local players will facilitate more rapid progress.

ARTS, DESIGN, AND DIGITAL MEDIA

Arts, design, and digital media is them second of the spotlight sectors in this report's discussion of emerging sectors. This cluster comprises a number of different activities that share human creativity and artistic methods as common roots of their success: the fine arts, architecture, special design, animation, motion picture and video production, music production and publishing, recording studios, advertising, and print publishing.

Strengths in creative activities

In a number of these areas, Oakland has distinct strengths that could be leveraged to foster new enterprises. **Architectural and engineering services and specialized design** (interior, industrial, and graphic design) have long thrived in Oakland due to the strength of its construction industry and have enjoyed a boost during the recent housing boom. The role of these firms in the emerging green technology industry will be vital , as previously discussed. Designers of all kinds also play an important role in Oakland's custom production activities. Whether it be custom glass, high-end furniture, or Halloween masks, artists and designers in Oakland create concepts and designs locally, and they frequently do some production locally, too. Certainly some large-scale production now occurs offshore, but Oakland should continue to nurture itself as a home for the designers of products and to embrace those enterprises seeking to produce some of their higher-end wares locally.

In recent years, the City also has seen tremendous growth in employment in **motion picture and video production.** Although this sector is still relatively small (1,000 employees) in Oakland, its strength is growing in the region with Disney's acquisition and expansion of Pixar Animation

Studios in Emeryville and the continued vibrancy of George Lucas' Industrial Light and Magic in Marin County. Mayor Dellums' Arts Task Force also recommends maintaining, developing, and supporting the film, television, and multimedia industries in Oakland. It recommends that the City be more proactive in allowing movies to be filmed on Oakland public property as a way to develop the film industry and increase City revenues.

The **fine arts** play an important role in the region for a number of reasons. Not only does a strong arts community contribute richness and texture to the cultural life of the City, but it also tends to create a dynamic of experimentation and innovation that can be vital to any regional economy. In short, it is hypothesized that creative people gravitate toward other creative people and that a creative culture lends itself to entrepreneurship and risk-taking, both positive traits in an innovation economy.

Synergy across creative work

In recent years, much has been debated regarding the existence and merits of a "creative class" of workers whose job is to create meaningful new forms, as defined by Professor Richard Florida of George Mason University. According to Florida, the creative class is composed of scientists and engineers, university professors, poets, and architects, among others. In his work, he has ranked the San Francisco Bay Area number one in the country for the presence of such workers compared to other regions.

This does not seem surprising. Oakland and the larger region are home to hundreds of arts- and culture-related community-based organizations, as well as major educational institutions such as the University of California and Stanford. Oakland also is home to the California College of Arts and Crafts (CCAC). Other organizations like Expression College for Digital Arts, Animation Mentor, a new school with 150 graduates, and The Crucible, an arts education nonprofit organization fostering collaboration of arts, industry and community, add to the variety and richness of programs that draw artistically minded individuals to the region.

Demand for these institutions seems to be on the rise: Ex·pression College had about 1,000 graduates in 2006, a 20 percent increase over the previous year. In California as a whole, the number of degrees (excluding professional and associate degrees) in arts, design, and media, grew from 3,139 in 2001 to 3,961 in 2006, an annual growth rate of 4.8 percent (CAGR).

Steps to develop the arts, design & digital media sector

To grow this cluster and its various components, Oakland would be well served to continue to make it a priority as it was during Mayor Jerry Brown's tenure. Continued funding for cultural arts events can help demonstrate how the arts, design, and new media can cross-fertilize each other and spawn new, yet-to-be defined activities, products, and services.

Other strategies include:

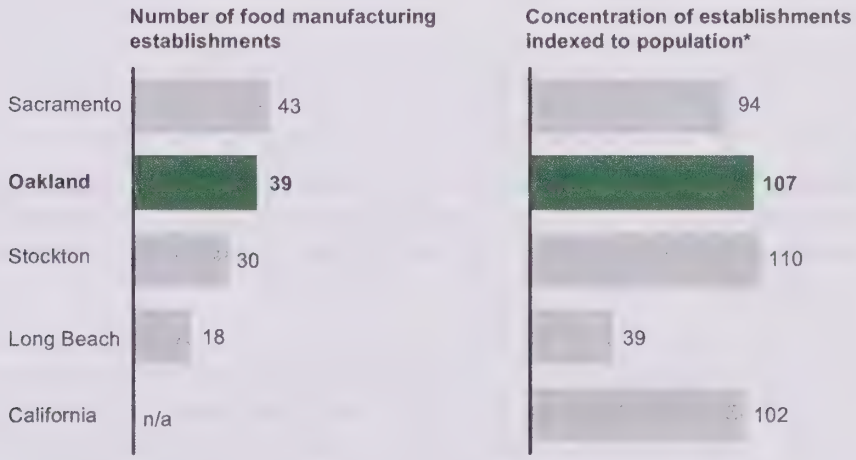
- Convene local artists, designers, and others in the creative arts fields to explore and better understand the elements of the local landscape that contribute to their ability to grow and flourish. Strengthen those elements.
- Brand and market Oakland and the region as a center for excellence in arts, design, and digital media, and link the companies and activities of this industry with the City's efforts to promote tourism.

- Identify specific events such as the annual ProArts Tour and the annual Brainwash Movie Festival in Oakland, and link those events into a comprehensive effort to communicate and promote events, venues, artists, and companies in this industry.
- Identify potential synergies among digital technology companies in the East Bay and across the Bay Area region, as for example Emeryville's Expression College leverages the presence of digital media companies to couple hands-on training in digital sound design, graphics, animation, and gaming, with bachelor's degree preparation.

SPECIALTY FOOD MANUFACTURING

Oakland is highly competitive in **specialty food manufacturing**, the third of our three spotlight emerging sectors. Specialty food enterprises numbered 39 companies in 2004, behind only Stockton when adjusted for population size. [Exhibit 51]

Exhibit 51
COMPARISON OF FOOD MANUFACTURING CONCENTRATION, OAKAND VS. CALIFORNIA BENCHMARK CITIES, 2004

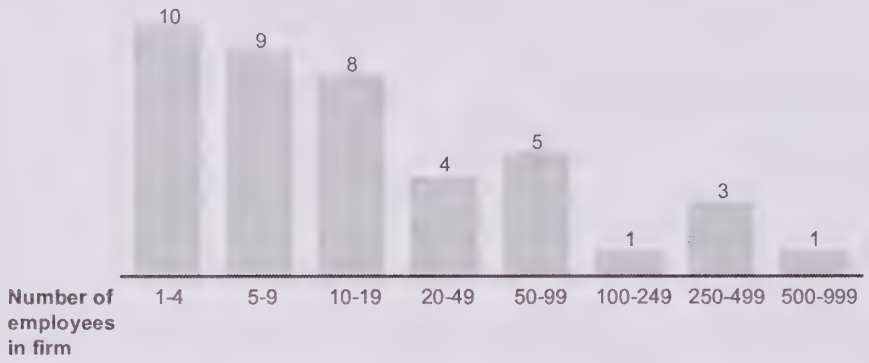


* Formula for index = (# of food manufacturing establishments * 1 million) / population
Source: County Business Patterns, 2004

Most of these companies are very small. Of the 39 companies in the sector in 2004, only ten of them employed 50 or more people, with the same number employing 4 or fewer. [Exhibit 52]

By 2005, Oakland's food manufacturing sector had grown to 59 companies with more than 1,941 employees. Bakeries and tortilla manufacturing are the strongest components of this sector, with more than half the companies and 69 percent of the employment.[33] It appears that most of the baked goods prepared in Oakland are destined for the Bay Area market and command a premium for being fresh and of high quality.

Exhibit 52
FOOD MANUFACTURING COMPANIES IN OAKLAND
Number of establishments, 2004
Total = 39



Source: U.S. Census Bureau; Hoovers

Harvest Hall and the slow food movement

Many of the traditional food companies born in Oakland – Del Monte, Safeway, Dreyer's Grand Ice Cream, Otis Spunkmeyer cookies, and Trader Vic's restaurants – are no longer in the City. Nonetheless, Oakland will soon be home to the new 185,000-square-foot California Harvest Hall, the centerpiece of a $300 million expansion of Jack London Square.

The project was influenced by the Slow Food movement launched in Italy in response to the fast food movement in the US. In line with Oakland's emerging green values, its objectives are to counteract fast food and fast life and the disappearance of local food traditions. It also seeks to stem people's dwindling interest in the food they eat, where it comes from, how it tastes, and how our food choices affect the rest of the world. Harvest Hall will include a daily market with produce, meats, seafood, cheeses, and baked goods; a professional cooking school; waterfront restaurants and smaller cafes to be run by local entrepreneurs; food-themed retail; and a chefs' hall of fame, which would induct chefs annually.

The development is emblematic of Oakland's potential to emerge as a freshness, local, organic, and gourmet food hub. As developer Hal Ellis said, "The history of Oakland really revolves around food: growing it, preparing it, packaging it, and shipping it." He added, "There's a strong historical and cultural linkage." Oakland has an opportunity to build on those foundations.

Increasing demand for specialty and gourmet foods

The market for special food products is growing, with young buyers leading the way, according to presenters at the Winter Fancy Food Show in San Francisco early this year. Sixty-four percent of all US shoppers or about 180 million people had bought specialty food during the prior 6 months,

33. California Employment Development Department.

according to a June survey of 1,738 adults by the National Association for the Specialty Food Trade and research firm Mintel International. That's up from 58 percent the prior year.

Consumers aged 18 to 24 led all age groups, with 74 percent buying specialty foods, which include gourmet coffees, chocolates, cheeses, breads, oils, spices and similar items. Those aged 25 to 34 followed closely behind, at 72 percent. By contrast, only 54 percent of people between 55 and 64 had purchased specialty foods.

Oakland and the Bay Area are certainly home to discerning consumers who put value on purchasing products and brands that are manufactured consistently with sustainability and other ethical principles. In the broader food sector, a similar set of values adds up to healthier, natural foods whose market is proven by the recent entry of Whole Foods and Trader Joe's into the Oakland market.

Steps to develop the specialty foods sector

- Make the most of the new Harvest Hall to showcase regional foods and Oakland's food culture.
- Hold events and conferences on specialty and gourmet food topics.
- Capitalize on Oakland's existing identity as a center for food manufacturing, but make sure that this brand evolves into one associated with freshness, artisan, specialty, and gourmet foods.
- Support the growth of smaller companies like Numi Tea, Lost Canyon Winery, Cosmic Chocolate, Michael Mischer Chocolates, and similar companies by recognizing that, together, they represent a distinct and emerging industry.
- Understand the land use, human resource, and infrastructure needs of these companies and make sure these are met via appropriate zoning and land use regulations, appropriate provision of water quality and power, and workforce training programs where appropriate.

CHAPTER SEVEN
STRATEGIC ENABLERS

As earlier chapters of this report have shown, Oakland has many attractive opportunities to leverage its strengths and promote economic growth. To secure the foundations for future success in these ventures, the City must begin investing now in four key enablers that are necessary to successful economic development in Oakland:

- **Improve public safety and actively manage the perception of crime** in the community. Safety is particularly important to encouraging new investment, new business development, business expansion, and retail in the downtown corridor.
- **Enhance the quality of education and workforce training.** As emphasized earlier, having a well-trained workforce ready at hand is important to attracting biotechnology, healthcare, and clean technology. As well, better coordinated workforce training and hiring programs will increase employment, which in the longer term will reduce crime.
- **Improve the City's business climate** with a focus on supporting the growth of small- and medium-size businesses.
- **Create and execute a strategic land use policy.** All our recommendations – for biotechnology, healthcare, the Port, retail, and Oakland's niche sectors – require rational land use policies.

Our previous sector discussions have already revealed some ways these enablers are essential to Oakland's success in these sectors. This chapter will discuss them mainly with an eye to their synergies across sectors, and to facilitating action.

PUBLIC SAFETY

Little that this report has recommended can become a reality until public safety is improved, and until that improvement makes a strong impression in the mind of potential investors and those who would bring new business to Oakland. This means mainly that crime is reduced – a tall order, but with a broad set of partners addressing the issue, including the private sector, it can be done.

Consider the magnitude of the problem. Oakland's crime rate per 100 people is nearly three times the national average. [Exhibit 53] Not surprisingly, Oakland's crime rate is a major deterrent to business development in Oakland. [Exhibit 54] Respondents to McKinsey's survey of Oakland businesses indicated overwhelmingly that crime in the City is the most important constraint to doing business.

Unfortunately, this phenomenon leads to a vicious cycle: Crime reduces the number of companies operating successfully in Oakland which, in turn, reduces the number of accessible job opportunities; few job opportunities make it that much harder for Oakland youth, ex-offenders, and others to engage productively in the economy, increasingly the likelihood that they would resort to crime.

To break this vicious cycle, many of Oakland's peer cities have found that collaboration between government, the private sector, the schools, unions, and the community is essential. And most

Exhibit 53

CRIME RATE IN OAKLAND AND BENCHMARK CITIES, 2005

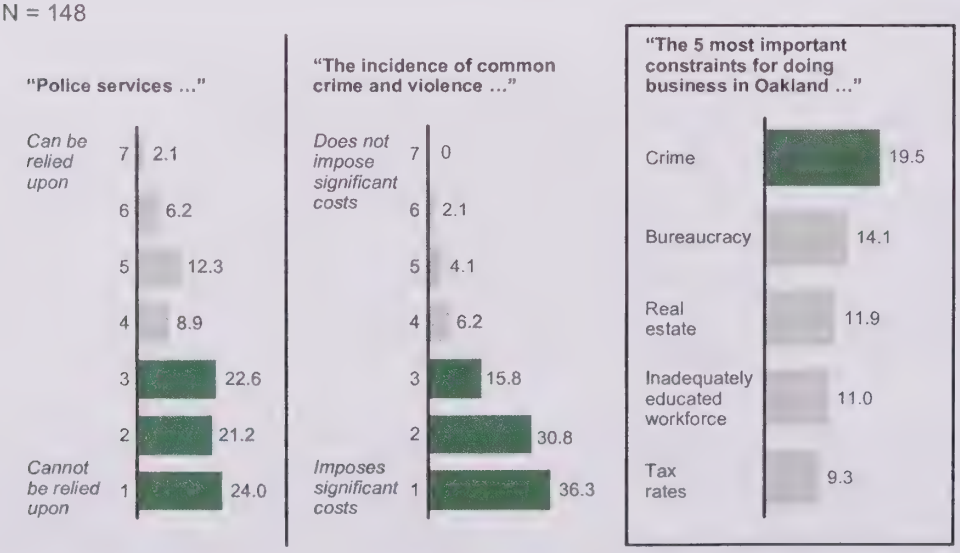
	Population	Number of crimes	Number of crimes per 100 people
Baltimore	641,097	11,248	1.8
Cleveland	458,885	6,416	1.4
Oakland	**400,619**	**5,692**	**1.4**
Sacramento	457,347	5,265	1.2
Stockton	281,747	4,202	1.5
Seattle	579,215	4,109	0.7
Long Beach	497,729	3,399	0.7
Newark	281,063	2,821	1.0
U.S.	296,410,404	1,390,695	0.5

Source: Federal Bureau of Investigations; McKinsey analysis

Exhibit 54

VIEWS OF OAKLAND BUSINESSES TOWARD CRIME-RELATED ISSUES

Percent survey respondents*
N = 148



* Responses shown may not total 100% as "not applicable" was also an available response
Source: Oakland Metropolitan Chamber of Commerce Survey, 2006

important is to start a process of economic renewal with new programs to reduce unemployment, provide better jobs, and train, educate, or retrain the people who will take those jobs.

For this reason, this report strongly urges the close integration of Oakland's economic development and workforce development strategies. It is essential that Oakland's economic growth is achieved in a way that provides more economic benefits to more of the community. The best way to spread the benefits of growth is to ensure that more Oakland residents can be productively employed and that a range of job and training opportunities exist for them to progress up the job and income ladder. The details of this approach will be discussed in the next section; however, the impact of sustainable, broad-based economic growth on the City's ability to reduce crime cannot be overstated. It is an essential step in grappling with this difficult issue.

Mayor Dellums' Task Force Recommendations: Public Safety

In the latter half of 2006, Mayor-elect Ron Dellums convened six public safety-related task forces on topics including Community Policing, Police Issues (the Rider's Consent Decree, hiring more Oakland residents as police officers), the Reintegration of Incarcerated Individuals, Youth Violence, Domestic Violence, and Measure Y and Violence Prevention.

The thoughtful work of these volunteer task forces is a tremendous resource for the Mayor, the Metropolitan Chamber, and all of Oakland's stakeholders as they look to economic development. In terms of the relationship of the Mayor's public safety task force recommendations to the concerns raised in this report, most are completely consistent with the findings and recommendations made here. While they are too numerous and rich in detail to list in full in this chapter, complete copies of the Task Force reports are available from the Mayor's office.

EDUCATION AND WORKFORCE TRAINING

The success of any community is, to some degree, tied to the quality of its education system. Here we look at both the K-12 and the postsecondary portion of Oakland's education system and make recommendations for how they, with the aid of a revised workforce development system, can better prepare the City's young people for employment in its most strategically important sectors.

K-12 education

With an annual budget of $435 million and nearly 6,000 employees – almost half of whom are teachers – the Oakland Unified School District (OUSD) is one of the largest employers in the City. It is a multi-ethnic, multi-racial, multi-language public school district where 93 percent of its students are of color. Like many California school districts, enrollment is declining; today, there are about 41,000 students in the District, down from 55,000 5 years ago. Some of this decline is due to the rise of charter schools in Oakland, which today have an enrollment of almost 7,000 children. A more significant driver of this decline, however, is the changing demographics in Oakland. Increasingly, affluent families are enrolling their kids in private schools, or they are moving away from Oakland to other communities.

Over the years, the OUSD has faced numerous organizational challenges, including underperforming service organizations, varying quality of teaching, and vastly inequitable outcomes for students as a result of poverty, socioeconomic inequality, racism, violence, and family/community dissolution.

Although there have been many improvements over the last couple of years, the District remains challenged in several ways:

- It is in a difficult fiscal situation with debt in excess of $58 million and a lower medium-grade bond rating.[34]
- 72 percent of third graders are not proficient in reading, and about 60 percent of ninth graders have failed to reach proficiency in algebra.
- Only 50 percent of ninth graders earn a diploma on time.
- High schools are raising graduation requirements, but only about one in four graduates leaves the District with the credits needed for acceptance into state colleges or universities.

These challenges are reflected in the perception of Oakland businesses toward the school system in Oakland. Our survey of local businesses revealed a low assessment of the quality of education offered in Oakland. [Exhibit 55]

Acknowledging the magnitude of the challenges it faced, in the fall of 2005, OUSD launched an ambitious plan to transform the school system in an effort to meet the needs of children and families in every neighborhood of the City. This effort, called ***Expect Success***, expands on grassroots reforms started in Oakland over the last decade, but also brings in best practices and new ideas from some of the most successful and innovative educators in North America. The program has attracted an unprecedented level of financial support to the Oakland schools from local and national donors.

Some of the changes resulting from Expect Success are highly visible – for instance, the creation of new neighborhood schools and the reorganization or closure of programs that are not attracting sufficient enrollment or meeting quality standards. Others, such as a more effective management structure, better technology for educators, and more empowerment for school leaders, might go unnoticed by the City at large, but are important nonetheless.

As it continues its reform efforts, the OUSD is trying to accelerate the growth in students' academic achievement by focusing on the basics – getting children to grade level in reading and math, and graduating them on time. Its success in doing so is critical to improving the quality of life in Oakland in the long term. Research shows that high school graduation can be predicted with reasonable accuracy from someone's reading skill at the end of third grade; a high school dropout is at least three times more likely to be arrested than a high school graduate; and a college degree means more opportunity, higher income, and better health over a lifetime. Currently, only 28 percent of Oakland third graders can read at grade level. The District's first goal is to more than triple that percentage in 5 years by systematically refocusing on the basics of good teaching and learning in early grades.

That OUSD leadership recognizes the key to improving Oakland's public schools is rigorous standards, enforced in a real way, is encouraging indeed. Even more encouraging, however, are the indications that their efforts are already leading to real improvements throughout the school system. For instance:

- Oakland has the most improved test scores of any large school district in California for 2 years in a row, and High School Exit Exam pass rates continue to climb.[35]
- Students at every grade level and in every ethnic and socioeconomic group showed progress on last year's California Standards Test.

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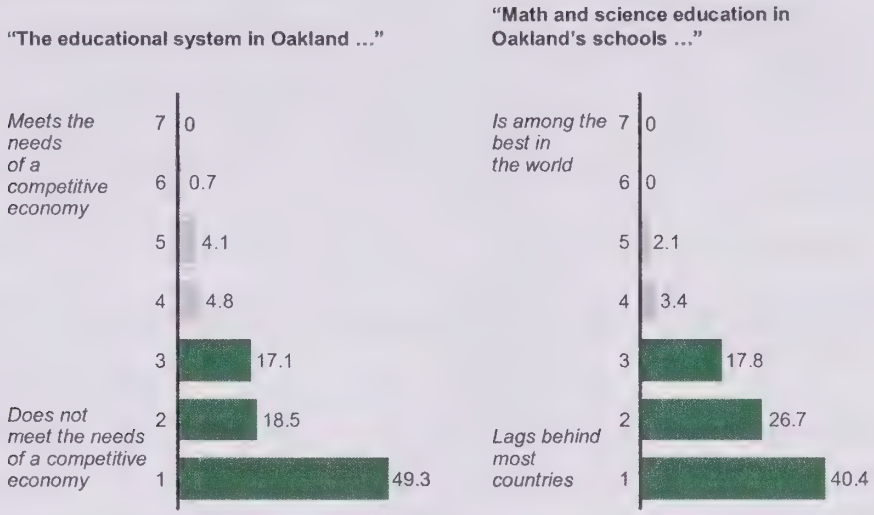
34. Baa2. Moody's Investors Services considers this grade subject to moderate credit risk.

Exhibit 55

VIEWS OF OAKLAND BUSINESSES TOWARD OAKLAND SCHOOLS

Percent survey respondents*
N = 148



* Responses shown may not total 100% as "not applicable" was also an available response
Source: Oakland Metropolitan Chamber of Commerce Survey, 2006

- In 3 years, attendance has gone up 2 percent Districtwide – that means hundreds more students are in class every day.
- Last year, Oakland high schools offered at least five times as many Advanced Placement classes as they did the previous year.
- In 2006, for the first time in recent history, all math and science teaching positions were filled before the first day of school with help from groups like the Oakland City Teacher Corps, Teach for America, and The New Teacher Project.

The OUSD's progress and the results of these relatively new efforts are commendable. It is hoped these early wins will help rally the District even more support for carrying out this change effort that, ultimately, is so critical to Oakland's economic future.

Postsecondary education

While quality K-12 public education is vital to the health of any community, quality postsecondary education – in particular, community college education – is equally essential. Much has been made in recent years at the national level of the importance of community colleges and public postsecondary institutions in sustaining the competitiveness of the US economy. Put simply, the issue is that as manufacturing jobs and other occupations that do not require postsecondary education move offshore, more of the US workforce will require at least some postsecondary training to compete for the more highly skilled positions left at home. This underscores for US regions like Oakland and the East Bay the importance of linking postsecondary training to the actual needs of employers in the region's growth industries. In fact, ideally, the K-12 system, community colleges, and 4-year

35. Oakland Unified School District website.

institutions should be well coordinated so that a seamless workforce preparation system is in place. Such a system should enable individuals to advance or retrain themselves in response to shifts in the labor market.

Adequately preparing its workforce in a coordinated fashion is a challenge for any community, but it is particularly the case in Oakland where only about one-half of the District's high school students graduate. Nevertheless, it must be done for the good of the City and its residents. For while many of California's current high-demand jobs do not require postsecondary education, many of the fastest growing jobs in the state – including network systems and data communications analysts, computer software engineers, network and computer systems administrators and physician assistants – require a bachelor's degree. [Exhibits 56, 57]

Exhibit 56

ESTIMATED GROWTH IN CALIFORNIA'S HIGHEST-DEMAND OCCUPATIONS

Thousands of jobs

Occupational title	Annual average employment 2004	2014E	Number of new jobs	Percent change	Median hourly Wage Dollars	Education training level
Retail salesperson	474.7	590.4	115.7	24.4	9.9	30 day OJT*
Registered nurse	205.4	247.1	60.9	20.3	8.2	30 day OJT
Customer service rep	199.3	252.2	52.7	26.4	15.1	1-12 month OJT
Laborers & freight, stock & material movers, hand	282.9	333.8	50.9	18.0	9.7	30 day OJT
Janitor & cleaning, except maids & housekeepers	229.9	279.6	49.7	21.6	10.0	30 day OJT
Office clerk general	411.8	454.8	43.0	10.4	12.2	30 day OJT
Food preparation & serving (fast food)	230.0	291.2	41.7	26.4	33.8	AA Degree
General & operations mgmt.	219.9	264.3	44.4	20.2	46.6	BA/BS degree + experience
Elementary school teachers, except special ed.	174.9	219.3	44.4	25.4	N/A**	BA/BS degree
Business ops., specialists, all other	140.6	182.6	42.1	30.0	26.3	BA/BS degree

* OJT = on-the-job training

** For some occupations, workers may not work full time all year around, not feasible to calculate an hourly wage

Source: California Employment Development Department, Labor Market Information Division

Currently, Oakland's nearby community colleges provide educational programs for 10 of California's most available and fastest growing jobs. [Exhibit 58] This is a strong foundation to build on. The next step for these community colleges would be to align their offerings with Oakland's jobs, and particularly, with jobs in its niche sectors. As things currently stand, most students taking these career preparation courses will have to look outside Oakland to work in those fields. The obvious way to rectify this is to identify Oakland's projected employment needs, over say 5-year periods, and align those needs with new career certificate programs to be offered in the community colleges. In so doing, colleges would be more proactive in building programs in advance of demand (perhaps working with an enhanced City forecasting resource to anticipate job and career opportunities in Oakland). Colleges would create programs by planning strategically, instead of relying on enrollment demand to plan near-term program changes.

Exhibit 57

ESTIMATED GROWTH IN FASTEST GROWING JOBS IN CALIFORNIA

Thousands of jobs

Occupational title	Annual average employment 2004	Annual average employment 2014E	Number of new jobs	Percent change	Median hourly Wage Dollars	Education training level
Network systems/data analyst	24.2	38.5	14.3	59.1	32.70	BA/BS degree
Software engineer, applications	84.4	123.6	39.2	46.4	42.80	BA/BS degree
Software engineer, systems	51.1	74.5	23.4	45.8	44.30	BA/BS degree
Network/systems admin.	29.6	42.0	12.4	41.9	33.10	BA/BS degree
Physician assistant	5.9	12.6	2.2	38.5	39.70	BA/BS degree
Database admin.	11.3	16.0	4.7	41.6	34.80	BA/BS degree
Home health aide	41.2	60.9	19.7	47.8	9.10	30 day OJT*
Gaming dealer	9.1	16.0	3.5	41.7	8.10	Post secondary Vocational Ed
Dental hygienist	19.9	28.2	8.3	37.3	38.90	AA Degree
Dental assistant	41.3	58.2	16.9	30.9	15.40	1-12 month OJT

* OJT = on-the-job training

Source: California Employment Development Department, Labor Market Information Division

Exhibit 58

LOCAL COLLEGE PROGRAMS THAT SUPPORT HIGH-OPPORTUNITY JOBS

Largest and fastest growing jobs (degree required)	Laney College*	Merritt College*	Lincoln University	Samuel Merritt College	Patten University	Mills College	Holy Names University	College of Alameda*
Network systems/data analyst	✓		✓			✓	✓	✓
Software engineer, applications								
Software engineer, systems								
Network/systems admin.	✓	✓	✓			✓	✓	✓
Dental hygienist			✓					✓
Database administrator	✓	✓						✓
Gaming dealer	✓	✓	✓		✓	✓		✓
Physician assistant		✓	✓	✓				
Registered nurse		✓		✓		✓	✓	
General & operations manager	✓	✓	✓		✓	✓	✓	✓
Elem. teacher (except special ed.)		✓			✓	✓		✓
Bus. ops. specialist, all other	✓	✓	✓		✓	✓	✓	✓

* Colleges included in Peralta Community College District in addition to Berkeley City College

Note: Not an exhaustive list of all colleges in and around Oakland

Source: Expert interviews; college websites

As two hypothetical examples, imagine that the specialty food manufacturing sector could be predicted to grow at a specific rate over the next 5- and 10-year periods. Community colleges might be positioned to build up resources in their business departments to offer courses in administering food manufacturing companies and in the logistics of freshness foods. Alternatively, if Oakland committed itself to growing businesses in the life sciences, the community colleges could develop curricula and create specific programs to help prepare students for life sciences careers, including those mentioned in Chapter 2.

Creating a responsive workforce development system

Creating a framework by which the dynamics of the labor market are reflected in a timely way in the programs and classes at community colleges and training centers would increase the odds that students could find meaningful work at increasing income levels. It would also enable businesses to plan for growth, knowing they can rely on a responsive workforce development system.

The Workforce Investment Act of 1998 created such a framework for workforce development and was designed to meet both the needs of businesses and those of job seekers. The premise of the legislation was that the needs of employers should drive the types of training opportunities available, while the needs of job seekers would drive the types of social and other services required to enhance their job readiness (child care, transportation, etc.).

This framework is built into the structure of each region's Workforce Investment Board (WIB), which directs the spending of federal training dollars allocated each year. In practice, however, the framework can break down, particularly in areas with the hardest-to-serve populations. In these areas especially, the focus can shift disproportionately to the individual and personal needs of the job seeker and away from the needs of employers. Indeed, it is a challenge to create a system that can effectively address the needs of both simultaneously.

To utilize its federal training dollars effectively, Oakland should restructure its WIB to reflect its economic development strategy, with strong representation from employers in its key industry clusters. San Francisco, San Jose, and many other cities have done this. Exhibit 59 illustrates how this might function.

There are considerable resources available to support this model at both the state and federal level. At a recent Career Technical Education Summit, Governor Schwarzenegger announced more than $57 million in his annual budget that will be made available for career technical education, saying, "In order for us to really keep that competitive edge, we have to do much more when it comes to investing in career tech education ...because [our competitors] are preparing a workforce to succeed in the global market." The State Chancellor for Community Colleges has also aligned its budget and programs along the lines of key economic sectors, including many of those identified in this report.

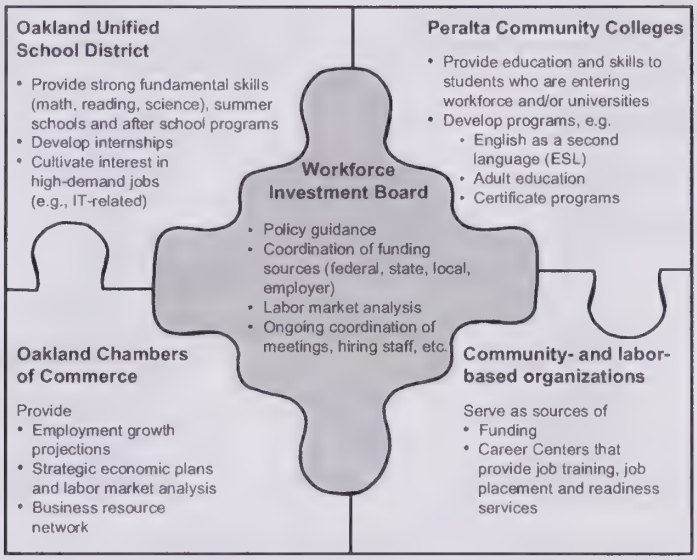
Mayor Dellums' Task Force Recommendations: Workforce Development

As with public safety, the recommendations made by Mayor Ron Dellums' volunteer Workforce Development Task Force are completely consistent with the findings of this report.

1. Convene a regional economic and workforce policy council to identify appropriate sectors and promising sector development for sustainable employment.

Exhibit 59

POTENTIAL INTERACTION MODEL FOR A WORKFORCE DEVELOPMENT SYSTEM IN OAKLAND



Source: Team analysis; expert interviews

2. Clearly and directly link and elevate the City's economic development and workforce development activities within CEDA.
3. Reconstitute the membership of the WIB.
4. Adopt a workforce development model to guide the resource allocation and committee activities of the WIB.
5. Optimize the WIB.
6. Develop a dashboard (Prosperity for Oakland) to provide a gauge for workforce and economic progress in Oakland.

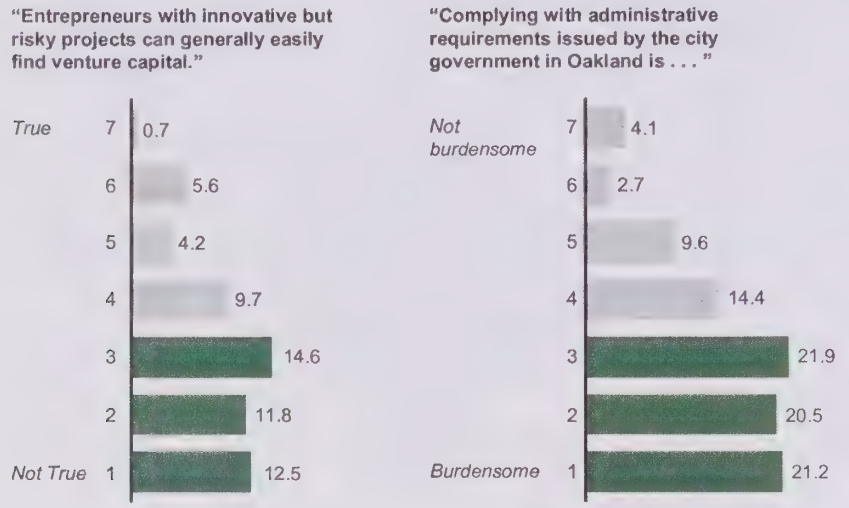
BUSINESS CLIMATE

In addition to public safety and the quality of public education, there are a number of factors that make up the overall business climate in Oakland. These include ease of starting or expanding a business (regulatory requirements), access to capital, tax levels, access to qualified employees, access to technology, physical infrastructure (real estate, road quality, access to an airport), and supporting resources (networking, advisory, etc.). This section reviews the responses from our survey of local businesses on each of these topics. It also examines the important role that small businesses play in the Oakland economy. [Exhibit 60]

Exhibit 60

VIEWS OF BUSINESSES TOWARD OAKLAND'S BUSINESS ENVIRONMENT

Percent survey respondents*
N = 148



* Responses shown may not total 100% as "not applicable" was also an available response
Source: Oakland Metropolitan Chamber of Commerce Survey, 2006

Regulatory requirements and access to capital

In general, respondents viewed the City's bureaucracy unfavorably. They also see access to capital, particularly venture capital for more risky start-ups, as hard to come by. [Exhibit 60]

In addition, it is important to note that Mayor-elect Dellums' Task Force on Citizens and Finance found that some populations in Oakland, particularly low-income communities and communities of color, have more limited access to traditional banking resources. Check cashers and predatory mortgage lenders pose a serious threat to the financial well-being of residents as well as small businesses. The Task Force proposes expanding access to financial education and information to Oakland residents and business owners. This report endorses this recommendation.

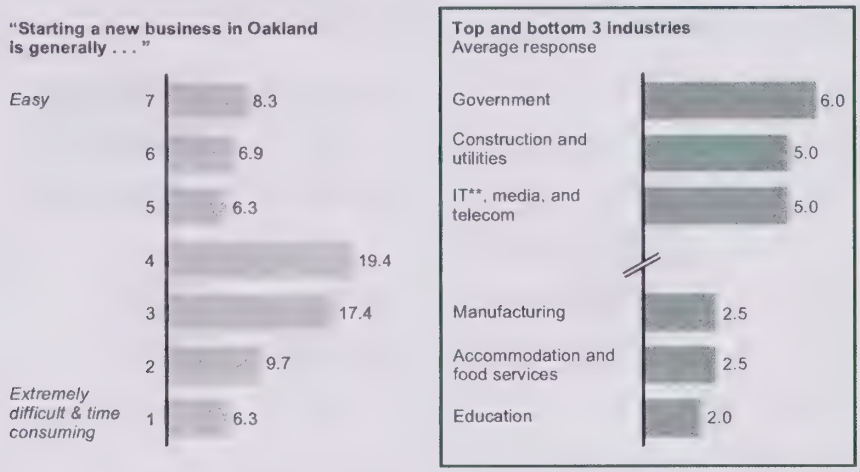
Given the analysis in Chapter 1, it is evident that financial services is one of Oakland's fastest growing sectors. As the sector grows, it would be beneficial to raise the awareness of new and expanding financial institutions of opportunities in Oakland's harder to serve populations, particularly with respect to small and home-based enterprises. At the same time, government regulatory agencies must pay close attention to predatory lending practices and clamp down on them.

Starting a new business appears to be somewhat easier than expanding an existing one, depending on your industry: starting a construction or IT company appears to be considerably easier than starting a manufacturing concern. In terms of expanding, transportation and healthcare firms are among those that find it easiest. [Exhibits 61, 62]

Exhibit 61

VIEWS OF OAKLAND BUSINESSES TOWARD STARTING A NEW BUSINESS

Percent survey respondents*
N = 148

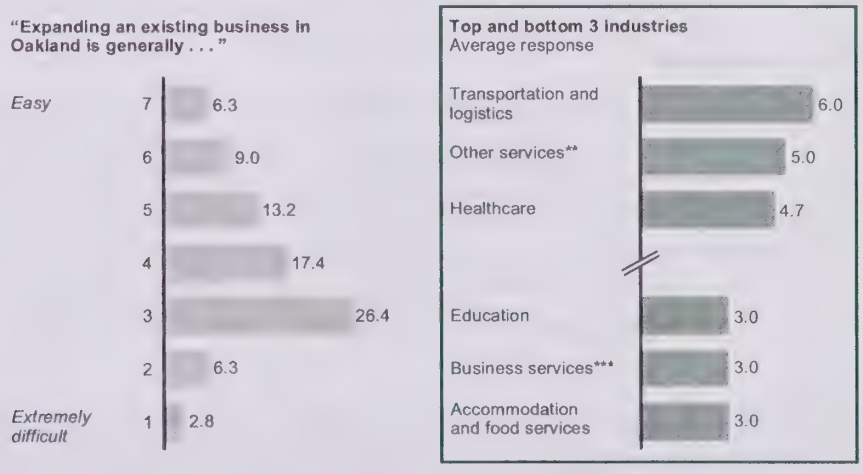


* Responses shown may not total 100% as "not applicable" was also an available response
** Information technology
Source: Oakland Metropolitan Chamber of Commerce Survey, 2006

Exhibit 62

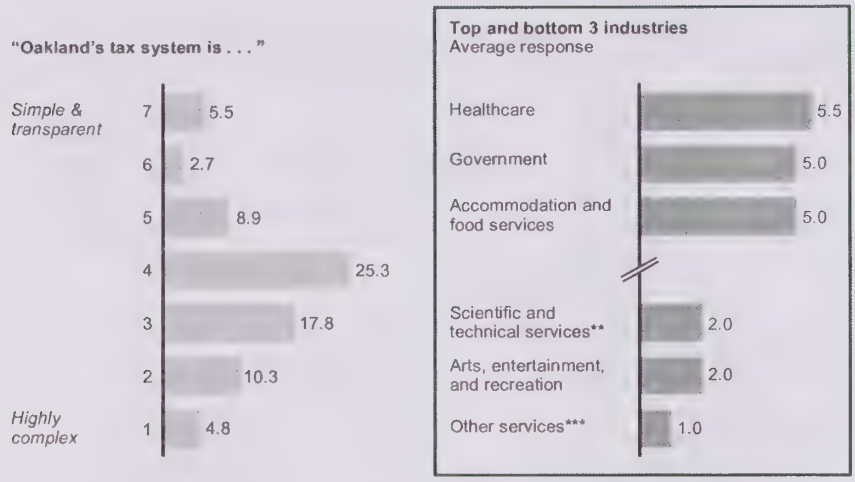
VIEWS OF OAKLAND BUSINESSES TOWARD EXPANDING AN EXISTING BUSINESS

Percent survey respondents*
N = 148



* Responses shown may not total 100% as "not applicable" was also an available response
** Repair and maintenance, personal, and laundry services
*** Support services, security, remediation services, etc.
Source: Oakland Metropolitan Chamber of Commerce Survey, 2006

Exhibit 63
VIEWS OF OAKLAND BUSINESSES TOWARD OAKLAND'S TAX SYSTEM
Percent survey respondents*
N = 148



* Responses shown may not total 100% as "not applicable" was also an available response
** Environmental, scientific research
*** Repair and maintenance, personal, and laundry services
Source: Oakland Metropolitan Chamber of Commerce Survey, 2006

Taxes

Business respondents felt the City's tax system is moderately complex, yet as many respondents indicated taxes had little impact on their company's incentive to work or invest as those who consider the impact significant. [Exhibit 63, 64]

When asked about the overall tax burden on their company as a percentage of the company's revenue, the burden was not reported as excessive by most respondents. [Exhibit 65]

Access to qualified employees

For the most part, respondents to our survey indicated that it was relatively easy to attract qualified employees. This was particularly true with respect to respondents in the scientific and technical services, arts and entertainment, and repair and personal services industries. This is an excellent situation, and, in the case of scientific and technical services, most likely due to Oakland's proximity to UC Berkeley and other educational institutions. [Exhibit 66] In fact, about half of all respondents indicated that the presence of UC Berkeley is important or very important for their company; again, scientific and technical services businesses found it most important. [Exhibit 67]

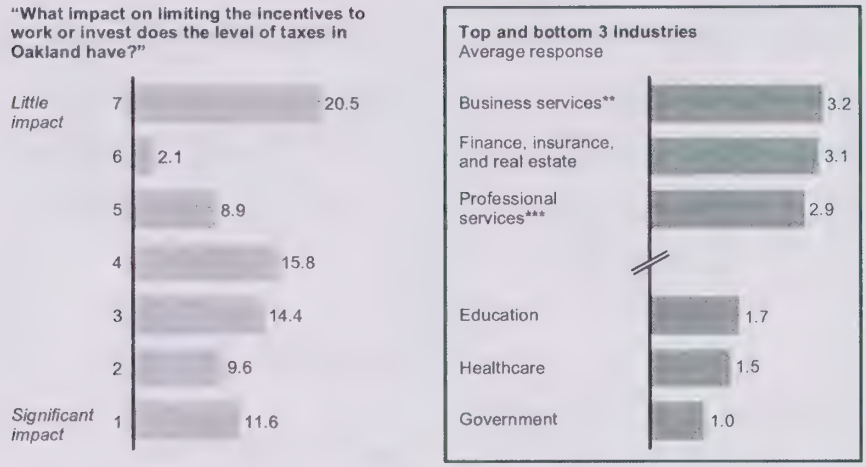
Physical infrastructure

Oakland's physical infrastructure gets mixed reviews. Eighty percent of respondents rated the quality of local roads fair to poor, with transportation and logistics companies giving them the highest rating, but only a fraction above "fair." This is not surprising given Oakland's 85-year road repaving schedule. Transportation engineers cite best practice as being 25-year repaving schedules or better.

Exhibit 64

VIEWS OF OAKLAND BUSINESSES TOWARD OAKLAND'S TAX SYSTEM

Percent survey respondents*
N = 148

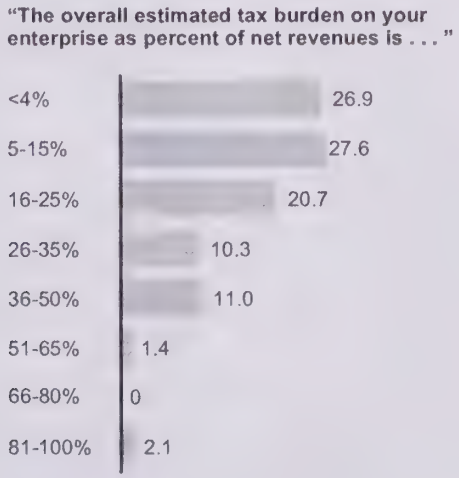


* Responses shown may not total 100% as "not applicable" was also an available response
** Support services, security, remediation services, etc.
*** Legal, accounting, management consulting, advertising, etc.
Source: Oakland Metropolitan Chamber of Commerce Survey, 2006

Exhibit 65

TAX BURDEN AS REPORTED BY OAKLAND BUSINESSES

Percent survey respondents
N = 148

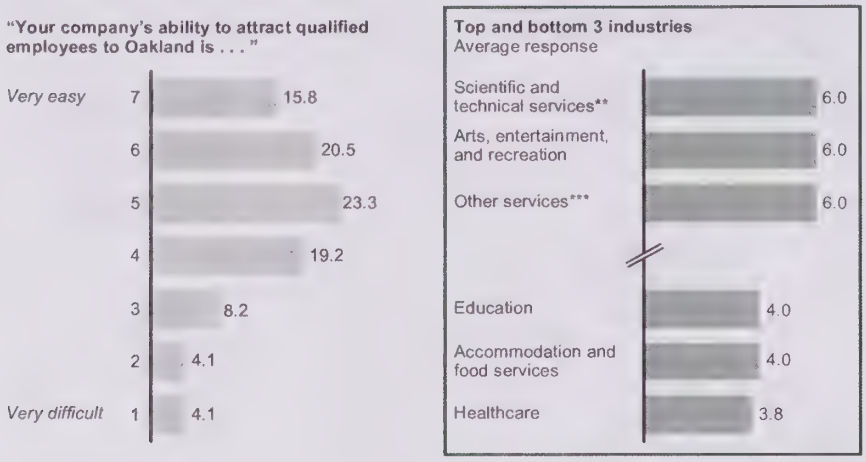


Source: Oakland Metropolitan Chamber of Commerce Survey, 2006

Exhibit 66

VIEWS OF OAKLAND BUSINESSES TOWARD THEIR ABILITY TO ATTRACT QUALIFIED LABOR

Percent survey respondents*
N = 148

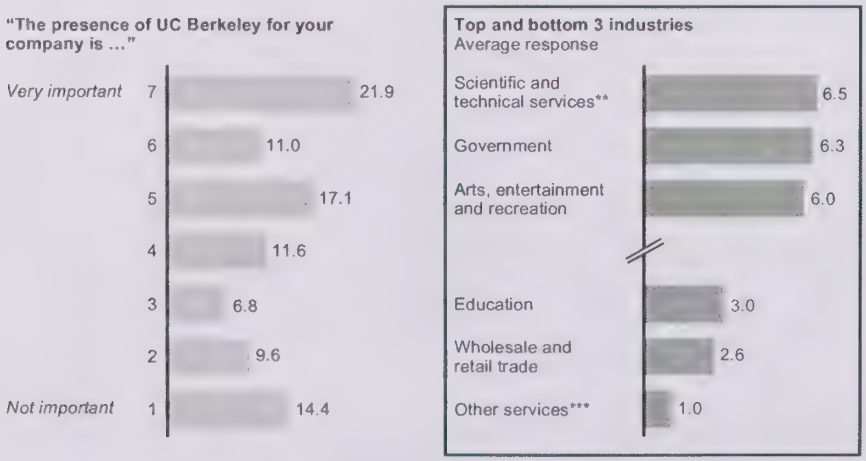


* Responses shown may not total 100% as "not applicable" was also an available response
** Environmental and scientific research
*** Repair and maintenance, personal, and laundry services
Source: Oakland Metropolitan Chamber of Commerce Survey, 2006

Exhibit 67

VIEWS OF OAKLAND BUSINESSES ON THE IMPORTANCE OF THE PRESENCE OF UC BERKELEY

Percent survey respondents*
N = 148



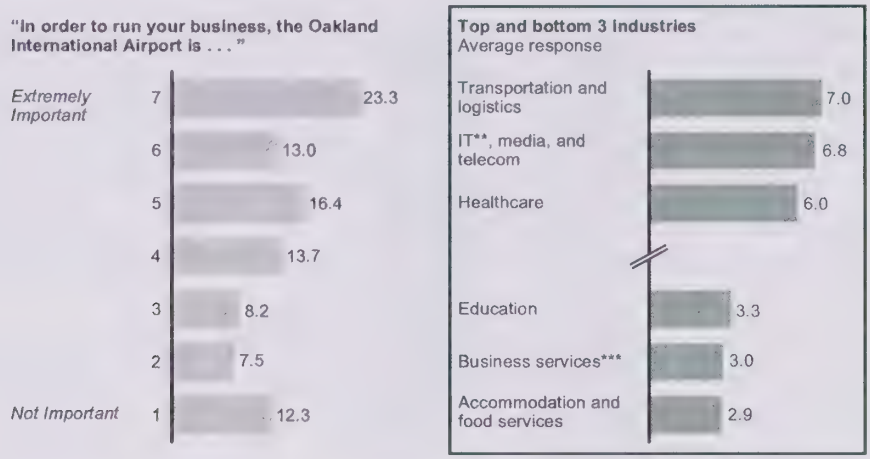
* Responses shown may not total 100% as "not applicable" was also an available response
** Environmental and scientific research
*** Repair and maintenance, personal, and laundry services
Source: Oakland Metropolitan Chamber of Commerce Survey, 2006

Exhibit 68

VIEWS OF OAKLAND BUSINESSES ON THE IMPORTANCE OF THE OAKLAND AIRPORT

Percent survey respondents*

N = 148



* Responses shown may not total 100% as "not applicable" was also an available response

** Information technology

*** Support services, security, remediation services, etc.

Source: Oakland Metropolitan Chamber of Commerce Survey, 2006

Many communities repave their streets as frequently as every 5 years. Highways were rated evenly across the board, although transportation and logistics firms gave them the lowest rating. The City's electricity network got high marks, as did its telecommunications and Internet infrastructure.

Interestingly, the importance of the Maritime Port varied widely, with 22 percent of respondents indicating it was extremely important to their operations while 39 percent indicated it was not important at all. Conversely, more than half of respondents indicated that proximity to Oakland International Airport was important or extremely important to their business operations, particularly for those companies in industries the City should retain and grow. [Exhibit 68]

Supporting resources

Oakland and the East Bay are home to more than 40 nonprofit and governmental organizations who offer some kind of business support services. These include technical services like business plan preparation or financial advising, human resource services, marketing services, networking services, and much more. Many of these organizations are either grant-funded or supported by government or membership dues. As such, both their levels of funding and their ability to provide consistent services vary.

The City's Economic Development Agency, Metropolitan Chamber of Commerce, and Workforce Investment Board have recently launched an effort to better market and leverage this range of resources to serve the small business population in Oakland. This type of initiative is extremely important, as are any that effectively bring entrepreneurs together with the range of business resources they need.

The importance of small businesses

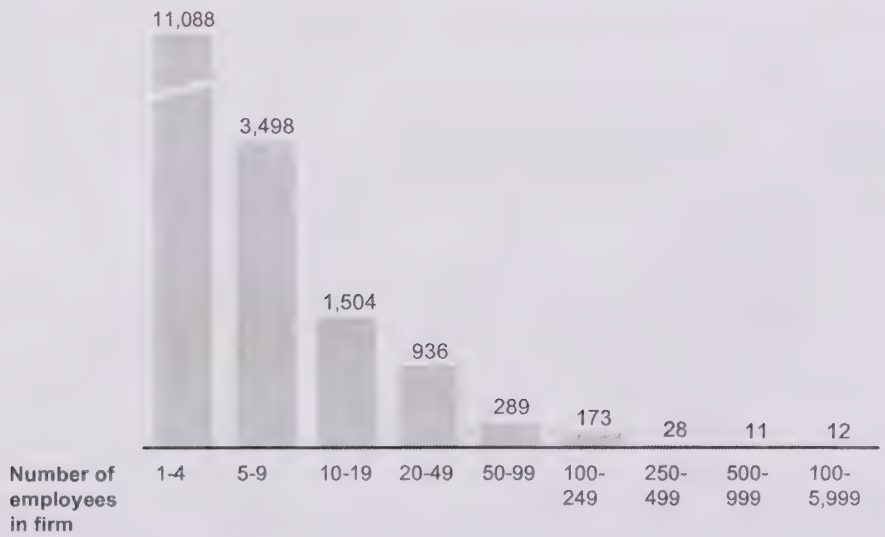
Nationally, small businesses play a vital role in creating jobs. According the US Small Business Administration (SBA), small businesses represented 99.7 percent of all the nation's employer businesses in 2005 while they employed 57.4 million Americans (or 39 percent of total employment).

In Oakland, the numbers are similar, although small businesses employ a larger share (49 percent) of Oakland's total workforce. This discrepancy may be accounted for by the difference in definition of small business. For the purpose of this report, a small- or medium-size business has 50 employees or fewer (small generally has 20 or fewer employees). The SBA uses its own, fairly complex formula that makes size a function of industry as well as employment. [Exhibits 69, 70]

In Oakland, employment in small- and medium-size enterprises (SME) is growing more quickly than in comparable cities. Between 1995 and 2002, Oakland ranked number one in SME job growth at 3.3 percent. [Exhibit 71]

When asked which two initiatives could best foster growth and employment in Oakland, the respondents to our survey of local businesses indicated that supporting SMEs was the most important, tied with re-zoning (or revised land allocation). [Exhibit 72]

Exhibit 69
DISTRIBUTION OF OAKLAND BUSINESSES BY SIZE, Q2 2006
Number of establishments

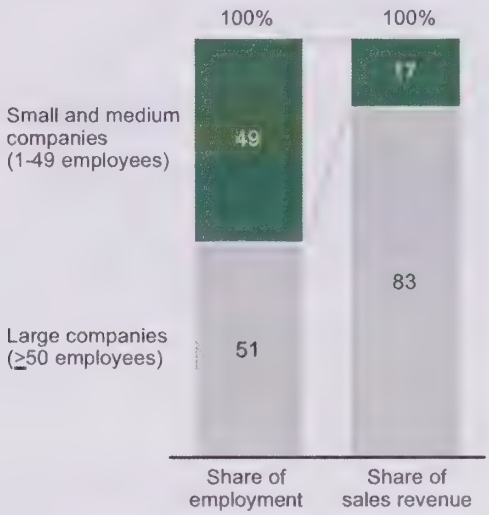


Source: California Employment Development Department

Exhibit 70

SHARE OF EMPLOYMENT AND SHARE OF REVENUE OF SMEs AND LARGE COMPANIES IN OAKLAND, Q2 2006

Percent



Source: California Employment Development Department; team analysis

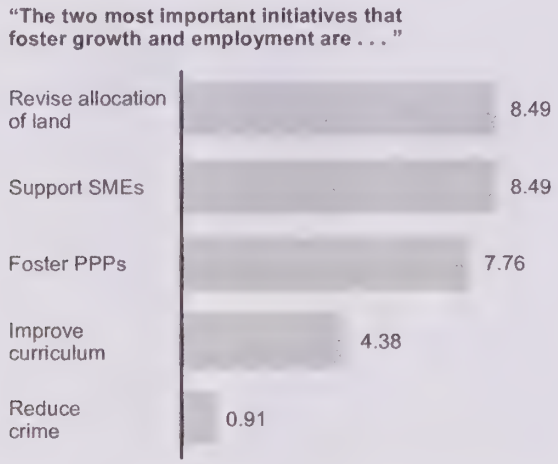
Exhibit 71

JOB GROWTH IN SMALL AND MEDIUM BUSINESSES IN OAKLAND AND SELECT U.S. CITIES, 1995-2002

Thousands of jobs

Source: ZIP code Business Patterns

Exhibit 72
VIEWS OF OAKLAND BUSINESSES ON WAYS TO FOSTER GROWTH
Top 5 responses, percent



Source: Oakland Metropolitan Chamber of Commerce Survey, 2006

Mayor Dellums' task force recommendations: small business development

In its report, the volunteer Task Force on Small Business urged the Mayor-elect to make small business development a priority in Oakland. It also called for increased resources to better support Oakland's commercial districts and their organizations; evaluating and improving the transparency of the City's bidding processes for small, Oakland-based businesses; supporting the transportation and goods movement sector; creating geographically defined industrial districts; and increasing the number of minority-owned businesses. These are consistent with the findings and recommendations of this report.

LAND USE

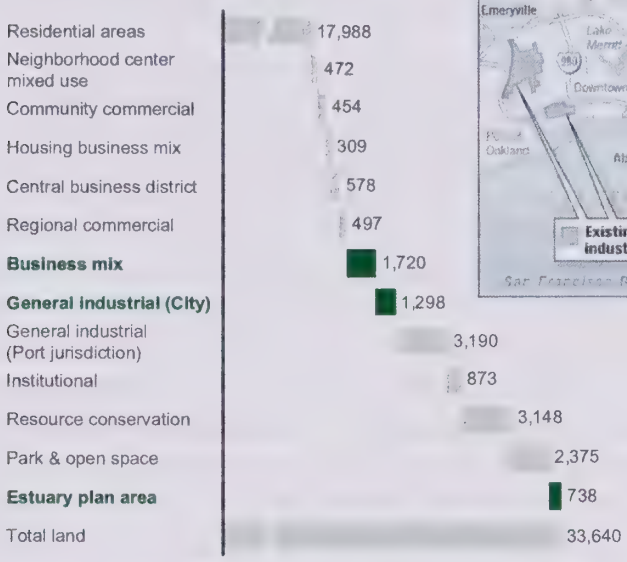
Many of the opportunities identified in this report hinge on Oakland's ability to identify and develop or redevelop real estate suitable for the types of companies seeking to locate and employ people in Oakland. While most of the actual development of sites falls to the private sector (along with securing investment capital and prospective tenants), the City government plays a crucial role in establishing a regulatory framework that clarifies where certain uses of land and real estate are permitted and, more than that, where the City would like to see them. The latter point is important because investors do tend to consider the degree to which a municipality has reflected upon its opportunities, and the clarity and sense of purpose with which it pursues them. Therefore, the more Oakland's stakeholders can collectively agree on what they want and where they want it, the more receptive and effective the investor community can be in responding to the City's preferences.

Exhibit 73 shows Oakland's 2002 acreage allotment plan by use. While amendments to this plan have been made over time, a more comprehensive, strategic approach is needed if Oakland is to succeed in growing its economy.

Exhibit 73

LAND DISTRIBUTION IN OAKLAND

Acres of land by use



Todd Tarantino / The Chronicle

* As of 2002; does NOT include several large general plan amendments since 2002

Source: City of Oakland, Public Records LUTE

Oakland is not alone in this challenge. Cities across the US and around the world grapple with this issue. Transitioning real estate from one economic activity to another is expensive and time consuming and can result in land parcels lying fallow for decades. While this has certainly been the case in Oakland, the good news is that the market exists for the modernization and re-use of most, if not all, of Oakland's available industrial and commercial real estate. The Bay Area commercial and industrial real estate market is robust and will be so for the foreseeable future. Opportunities exist in manufacturing (higher-value-added activities primarily), logistics, research and development (laboratories), and other types of activity outlined in this report.

To strategically position Oakland to capitalize on the market opportunities that exist, officials should focus immediately on clarifying the City's land use policy. Doing so would include:

1. **Zoning for business uses.** Businesses make decisions about where to locate themselves based on a level of assurance from municipalities that their entitlements to operate will continue. The City's commitment to dedicated business lands can be achieved through exclusive business Zoning District(s), including districts for commercial and light industrial, office/industrial park settings, and general and heavy industrial districts. Certainty in zoning as well as a transparent regulatory process allow businesses to invest with confidence in their land, infrastructure, and facilities.
2. **Resolving infrastructure issues.** Intelligent design and the provision of public infrastructure appropriate to business operations should accompany land use policy decisions. This will involve prioritizing City-initiated capital improvements with an eye toward attracting and retaining high-growth companies to the City: Improvement of roadways to accommodate

trucking and rail access; increases to capacity of water, gas, and sewer systems to fulfill food production and laboratory/R&D uses; and ensuring adequate electrical power capabilities to support digital media production and software and server needs of future businesses should be elements in redevelopment plans, following the direction set in the General Plan or subsequent studies.

3. **Clarifying design and development standards.** Design and development standards (e.g., setbacks, landscaping, buffering requirements) should be developed specific to business zoning districts. Considerations include the design and aesthetics of emerging industries (in the case of office industrial parks), as well as requirements for the loading and circulation of commercial vehicles. Fencing, yard standards, and border requirements at residential zone border areas should also consider the security needs of businesses and include buffering requirements for any new noncommercial development at a district's borders, thus enabling a better business environment while improving environmental conditions for residents.
4. **Updating land use classifications.** New, contemporary land use classifications with appropriate definitions will encourage the location of new industries to Oakland. Such classifications will help City planners to make good land use decisions, based on a clear understanding of the needs of traditional industry as well as new emerging industries.

Case studies of cities like Portland, Chicago, and Vancouver, British Columbia, suggest that effective land use policies can be implemented and have a significant, positive impact on a city. Land use policies, when discussed in an economic development context, should be grounded in a full understanding of the value of land development in the generation of labor productivity, increased output, job growth (both direct and in-direct through the multiplier effect of supplier networks), tax revenue to the City, and support of other local businesses – all of which combine to produce benefits for a municipality.

The debate, whose central issue is how best to utilize the limited quantity of existing industrial land, is well worth undertaking. Given Oakland's prime location within the San Francisco Bay Area, its land is very attractive to and highly valued by a variety of parties. Land use policies should be designed strategically. As the Mayor's Land Use Task Force states, land use policy should allow for:

- Meaningful participation
- Transparency in the public process
- Equity and sustainability
- Accountability to plans and agreements.

Furthermore, the Task Force recommends that an industrial land use policy and exclusive, designated zoning be adopted to prevent the loss of more industrial land. It recommends that there not be further general plan amendments to noncommercial industrial uses until the adoption of such zoning occurs. Moreover, city planners drafting land use policies should not lose sight of the real economic needs, benefits, and trade-offs inherent to the City of Oakland in deciding how best to utilize its precious land. A rational land use policy that provides distinct designations for commercial and industrial activities can enable great economic benefits for a city and its inhabitants.

In particular, given the findings of this study, there is clear demand for commercial and industrial land and improved infrastructure from the following industries:

- Biotechnology (particularly needs office and R&D space, appropriate in new Office/ Industrial Park zones)
- Trade, transportation and logistics (including wholesale trade, which requires General to Heavy Industrial zoning)
- Arts, design, and digital media, including any custom production that stems from product design taking place in Oakland (tends to locate in Commercial/Light Industrial districts, and could occur in existing Housing & Business Mix zones where residential land pricing has not escalated beyond the reach of businesses)
- Healthcare (may require Light Industrial zoning if incorporating "wet labs")
- Construction and building materials (must be in dedicated Commercial and Light Industrial zones due to active yard use)
- Clean technology, waste management, environmental technology remediation, and material reuse and recycling (require General Industrial zoning)
- Specialty and gourmet food manufacturing and bakeries (larger facilities usually require separation from residential uses due to ventilation and distribution needs in dedicated Light or General Industrial zones)
- Specialty and value-added manufacturing (often prefers locations proximate to the Airport, Port, and other distribution hubs in Light to General Industrial zones).

CONCLUSION
TAKING THE FIRST STEPS

The opportunities for sustainable, equitable, economic growth in Oakland outlined in this report are exciting. And fortunately so, for these opportunities come at a time when global forces are picking up speed, making change not only desirable, but absolutely necessary.

Enhancing economic growth and competitiveness while at the same time working to reduce crime, improve education, and make major changes in the City's business environment is without doubt an ambitious goal. But Oakland possesses much strength, both as a community and in the nature of its economy, with which to pursue these opportunities.

How have other cities done it?

Most economically successful cities and regions shape and implement an economic development strategy. A good strategy lasts 5 to 6 years, and then a new analytical understanding of economic trends and the strategies and tactics that could address them is required.

Once the strategy is in place, cities require an implementation mechanism, or an organization that will maintain the collaborative framework and ensure that progress is made on a wide array of initiatives.

Some cities prefer to house such an entity within the Mayor's office (San Francisco), others make it a distinct city department (San Jose), and others prefer to create a separate entity (frequently a non-profit Economic Development Corporation) that embodies the collaborative effort in that it is run by the public and private sectors together.

What comes next?

Now comes the hard work of creating a shared agenda for change: agreeing on priority initiatives, crafting them in detail, and signing up for specific actions and deadlines.

The OMCC will convene working groups clustered around many of the key industries discussed in this report. Leaders from each sector can be engaged in the strategy process along with public, education, and labor officials to examine any obstacles to their growth and to identify key actions, investments, or policies that could enhance their growth and competitiveness.

At the same time, the OMCC will be working in close collaboration with the Mayor's office and those community Task Forces related to economic development, especially to the "enabling" topics identified in the previous chapter.

A strategic recommendation

A common characteristic of economic development best practices across the United States is a strong partnership between the public and private sectors. The sooner Oakland establishes how that partnership will function and assigns roles and responsibilities to the different stakeholders for follow through, the higher the chances that the economic development strategy effort launched on May 3, 2007 will be a success.

APPENDIX

Exhibit A1

BENCHMARK CITY SELECTION

Potential benchmark cities assessed for similar size, shadow city status, top port status, and relevance as a peer city in California

Benchmark city for this report

City	Population Thousands	Shadow city	Top 10 U.S. port*	California peer city
Philadelphia	1,460			
San Antonio	1,260			
Baltimore	635	●	●	
Seattle	574		●	
Boston	560			
Portland	530			
Long Beach	470	●	●	●
Sacramento	445			●
★ **Oakland**	**400**	●	●	●
Miami	390			
Honolulu	380			
St. Louis	350			
Tampa	325			
Pittsburgh	284			
Newark	280	●	●	
Stockton	278	●		●
Norfolk, VA	230			
Tacoma	200		●	
Vancouver, BC	155	●		

* Based on total import-export value, 2000

Source: U.S. Census Bureau; U.S. Army Corps of Engineers; team analysis

Exhibit A2

INTERVIEWS CONDUCTED IN THE PREPARATION OF THIS REPORT

- Alameda County, Office of the Assessor
- APL Americas
- Bay Area Economic Forum
- Bay Area Rapid Transit (BART)
- Bay Area World Trade Center
- Bio-Rad Laboratories
- Law Office of Roseanne Calbo-Jackson
- Children's Hospital & Research Center Oakland
- Children's Hospital Oakland Research Institute
- City of Oakland (numerous departments)
- Cleveland Foundation
- The Clorox Company
- Cost Plus World Market
- Doctors Medical Center
- Dreyer's Grand Ice Cream
- East Bay Economic Development Alliance
- Ellis Partners
- Evans/McDonough Company
- Fourth Dimension Software
- Genentech
- HiTech Construction & Management
- Kaiser Permanente
- McKinsey & Company (numerous experts)
- Oakland International Airport
- Oakland Merchants' Leadership Forum
- Oakland Police Department
- Oakland Tribune/ANG Newspapers
- Oakland Unified School District
- Peralta Community College District
- Port of Oakland
- Safeway
- Signature Properties
- Sustainable Systems
- University of California Berkeley, Office of Technology Transfer
- Wal-Mart
- Wareham Development
- Zatkin Investments

Exhibit A3

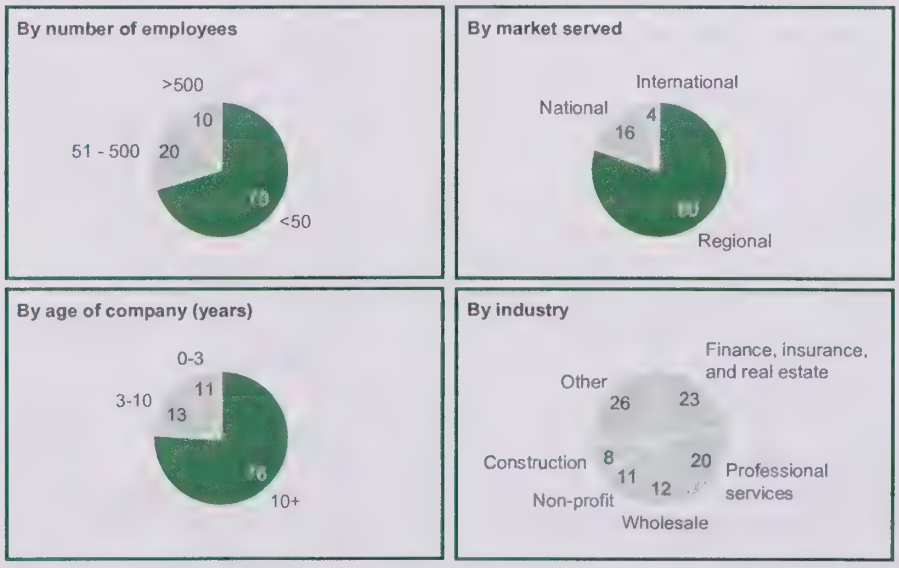
ORGANIZATIONS THAT DISTRIBUTED THE OMCC SURVEY

- Brandywine Realty Trust
- The Building Owners and Managers Association (BOMA) Oakland Chapter
- East Bay Economic Development Alliance
- Hispanic Chamber of Commerce of Alameda County
- Oakland African American Chamber of Commerce
- Oakland Chinatown Chamber of Commerce
- The Oakland Commerce Corporation
- The Oakland Merchants Leadership Forum
- Oakland Metropolitan Chamber of Commerce
- The Shorenstein Company

Exhibit A4

OVERVIEW OF SURVEY RESPONDENT COMPANIES

100% = 145



Source: Oakland Metropolitan Chamber of Commerce Survey

Exhibit A5

OAKLAND SHOWS A GREATER DISPARITY BETWEEN AFFLUENT AND POOR HOUSEHOLDS COMPARED TO BENCHMARK CITIES AND U.S.

Household income distribution, 2005

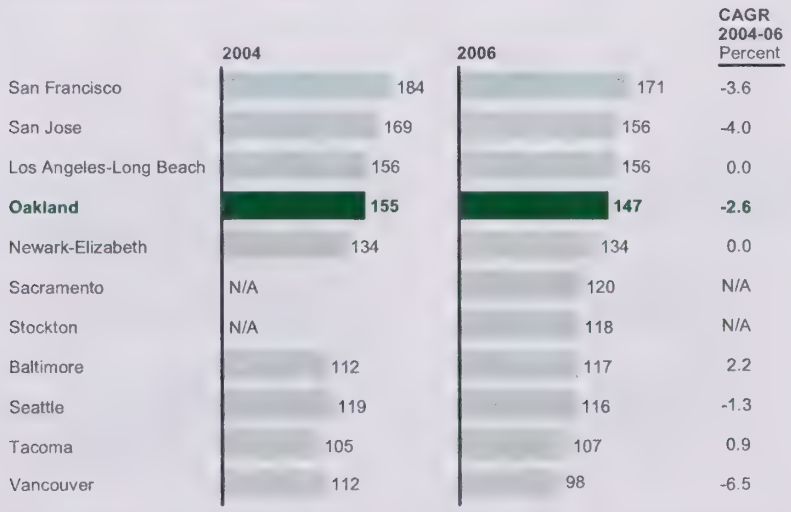
Percent; thousands of households

Source: American Community Survey; U.S. Census Bureau

Exhibit A6

OAKLAND'S COST OF LIVING IS CONSIDERABLY HIGHER THAN IN MOST BENCHMARK CITIES

Cost of living* indexed to U.S. average



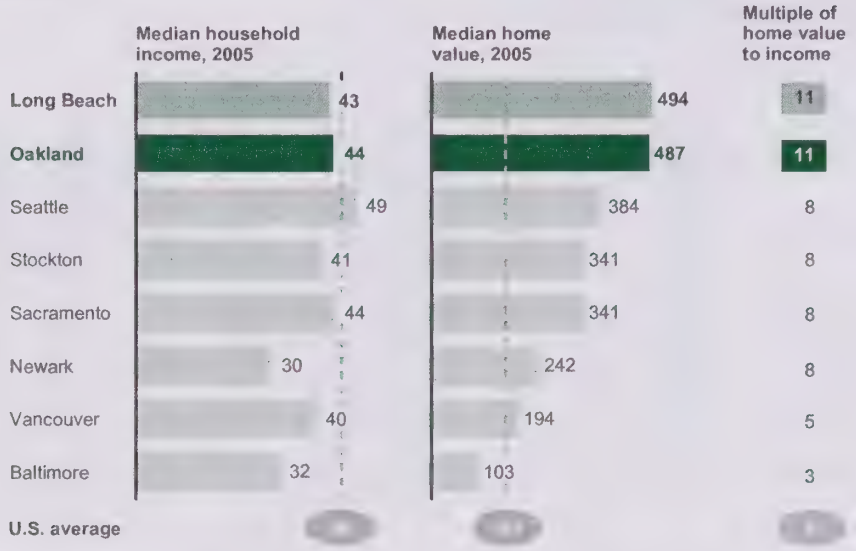
* Cost of living is defined as weighted average of food (13%), housing (28%), utilities (10%), transportation (10%), healthcare (4%) and misc. good and services (35%); does not include taxes

Source: ACCRA Cost of Living Index; McKinsey analysis

Exhibit A7

HOME OWNERSHIP IS OUT OF REACH FOR MEDIAN INCOME HOUSEHOLDS IN OAKLAND AND LONG BEACH

$ Thousands

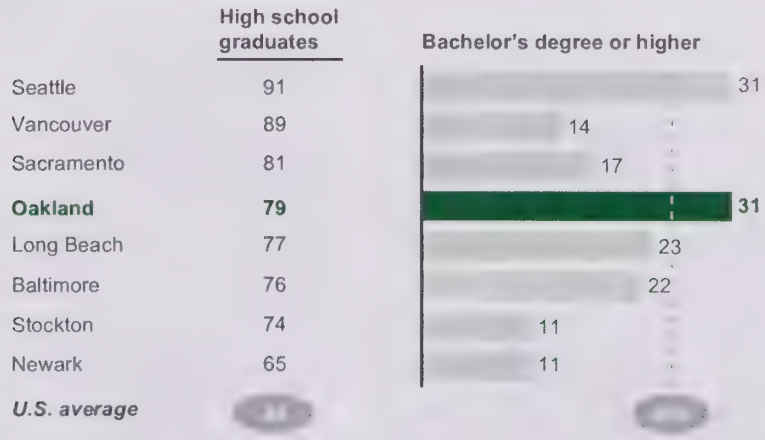


Source: U.S. Census Bureau; McKinsey analysis

Exhibit A8

BELOW AVERAGE SHARE OF HIGH SCHOOL GRADUATES IN OAKLAND, BUT HIGH SHARE OF RESIDENTS WITH BACHELOR DEGREES

Percent



Source: U.S. Census Bureau; McKinsey analysis

Exhibit A9

OAKLAND'S POPULATION IS DIVERSE RACIALLY AND ETHNICALLY, WITH THE MIX SHIFTING OVER TIME

Oakland population by race and ethnicity

Percent; thousands

* Figures do not total 100% due to rounding error

Note: Oakland 2006 population = 411,755; ethnic/racial breakouts not available for 2006

Source: U.S. Census Bureau; California Department of Finance; McKinsey analysis

Exhibit A10

OAKLAND IS LESS DIVERSE THAN SEATTLE IN TERMS OF ANCESTRIES

Reported ancestries with >0.5% share of city population, 2000

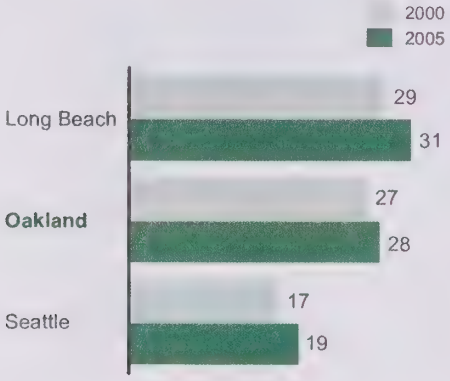
Number of unique ancestries

Source: Decennial Census, 2000

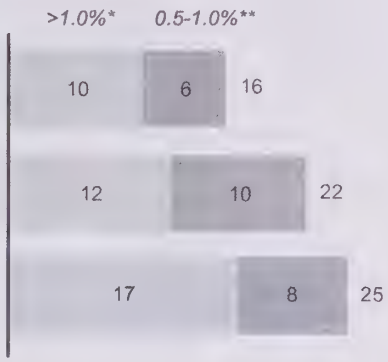
Exhibit A11

OAKLAND'S POPULATION INCLUDES A HIGHER FOREIGN-BORN SHARE THAN SEATTLE, BUT IT COMES FROM FEWER UNIQUE COUNTRIES

Foreign-born share of population
Percent



Birth countries with >0.5% share of foreign-born population, 2000
Number of unique countries

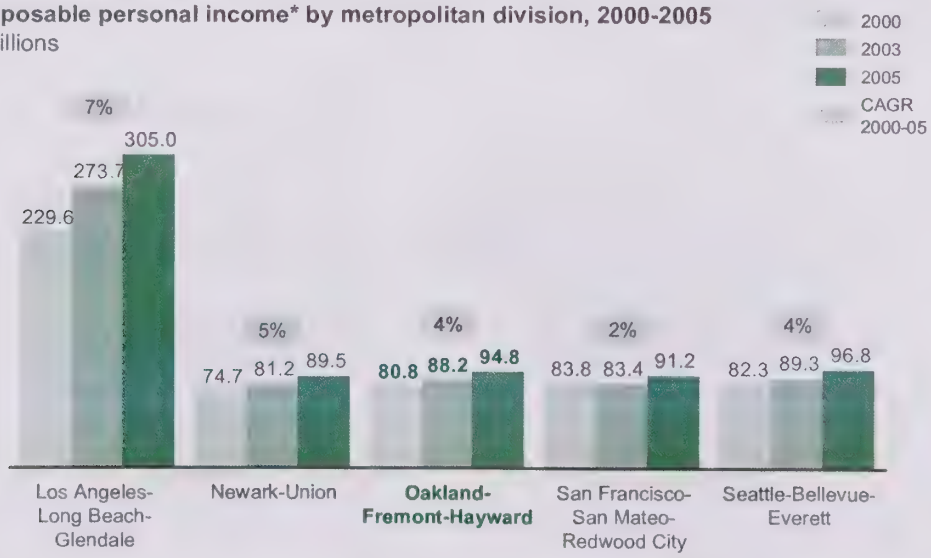


* Oakland: Mexico, El Salvador, Guatemala, China, Hong Kong, Korea, Canada, India, Cambodia, Laos, Philippines, Vietnam
** Oakland: Honduras, Nicaragua, Ethiopia, Taiwan, Japan, Bosnia and Herzegovina, United Kingdom, Thailand, Nigeria, Germany
Source: Decennial Census, 2000

Exhibit A12

GROWING DISPOSABLE INCOME IN OAKLAND WILL SUPPORT ADDITIONAL RETAIL

Disposable personal income* by metropolitan division, 2000-2005
$ Billions



* Disposable Personal Income is the total after-tax income received by all persons in metropolitan division
Source: U.S. Bureau of Economic Analysis; Moody's Economy.com


OAKLAND
METROPOLITAN CHAMBER OF COMMERCE
Serving the Business Community Since 1905